



Poetry of the Ruins

Recalling the Memories of Past

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A ruin should always be protected but never repaired - thus may we witness full the lingering legacies of the past.

----- Walter Scott

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Introduction

Throughout history, the concept of ruins has been the subject of continuous perversion. From the ancient Greek era to the current era of globalization and destruction, scholars, philosophers, artists, architects, and filmmakers have described many cultural concepts about ruins. The ruins are promptly interpreted from symbolic value to incomplete proof. From "picturesque" or "sublime" forms to the passing of time and the ephemeral contemplation of human conditions; from political reflection on authoritarianism to evidence of mass destruction; from memory objects to active venues for change. If the concept of "ruins" is released from a purely literary and picturesque profession, we can realize that, as Walter Benjamin (1963) proclaimed, the past is ruins above ruins, and "Ruins" are eternal and inevitable conditions. In every era, time, war, and natural disasters have occurred and continue to produce ruins, which prompts people to think about how to deal with them. The ruins caused by elements considered to belong to distant objects in the past have increasingly become contemporary intrusive elements, which are now of great significance.

"What is a ruin, after all? It is a human construction that has been abandoned to nature and one of the features of ruins in the city is their wild appearance: they are places full of promises and unknowns, with all their epiphanies and their risks".^[1] The aspect of promise and of future new possibilities contained by the abandoned ruins has been also highlighted by Martin Heidegger, when he said that: "the abandonment of things and the opening to mystery belong to each other. They offer us the opportunity to stay in the world in a completely differently way, they promise us new foundations on which we can restart [...] they allow us to see the possibility of a new way for man of rooting in his own ground."^[2]

Moreover, the etymology of the word, from the Latin *ruina*, from *ruĕre*, that means "to precipitate, to reverse", reveals the changing essence of ruin, which is the never definitive result of a transformative dynamic triggered by different causes that produce a decay of the form and the role of architecture, but also the development of new balances which open to the design interpretative imagination. The ruins contain memory, perversion, and imagination, but as the etymology shows, they are also destructive,

[1] R. Solnit, *Wastderlust, A history of Walking*, Viking, New York 2000; *Storia del Camminare*, Bruno Mondadori, Milan 2000.

[2] M. Heidegger, *Gelassenheit*, Neske, Pfullingen 1977; tra. it., *L'abbandono*, Il Melagone, Genova 1983; p. 39.

extinct, angry, and violent. It tells how time, the effects of abandonment or destruction caused the "specular architecture reversal."^[3] to lose its structural logic, and it also explains how this same disintegration can open up a new set of rules, resulting in what Georg Simmel said : "a completely new formal unity, that is absurd, not designed, incoherent, whose nature is procedural; a dense and permeable unity which is opposed to the unity of the compact and structured form."^[4]

In contemporary cities, we can find different "forms" of ruins: fragments; unfinished archaeological sites or "ruins after birth"; inhabited ruins; until the paradox, Marc Augé (2004) or Buddha Franco Purini (2000) proved that "the construction site is a ruin." This situation emphasizes the uninterrupted juxtaposition of the ruins of the ancient past that emerged from the ground with the recent increase in the ruins of the past. Way: New ruins on ancient fragments. All of these are "the ruins of the moment" because, as Augé puts it: "ruins exist through the look that is on them."^[5]

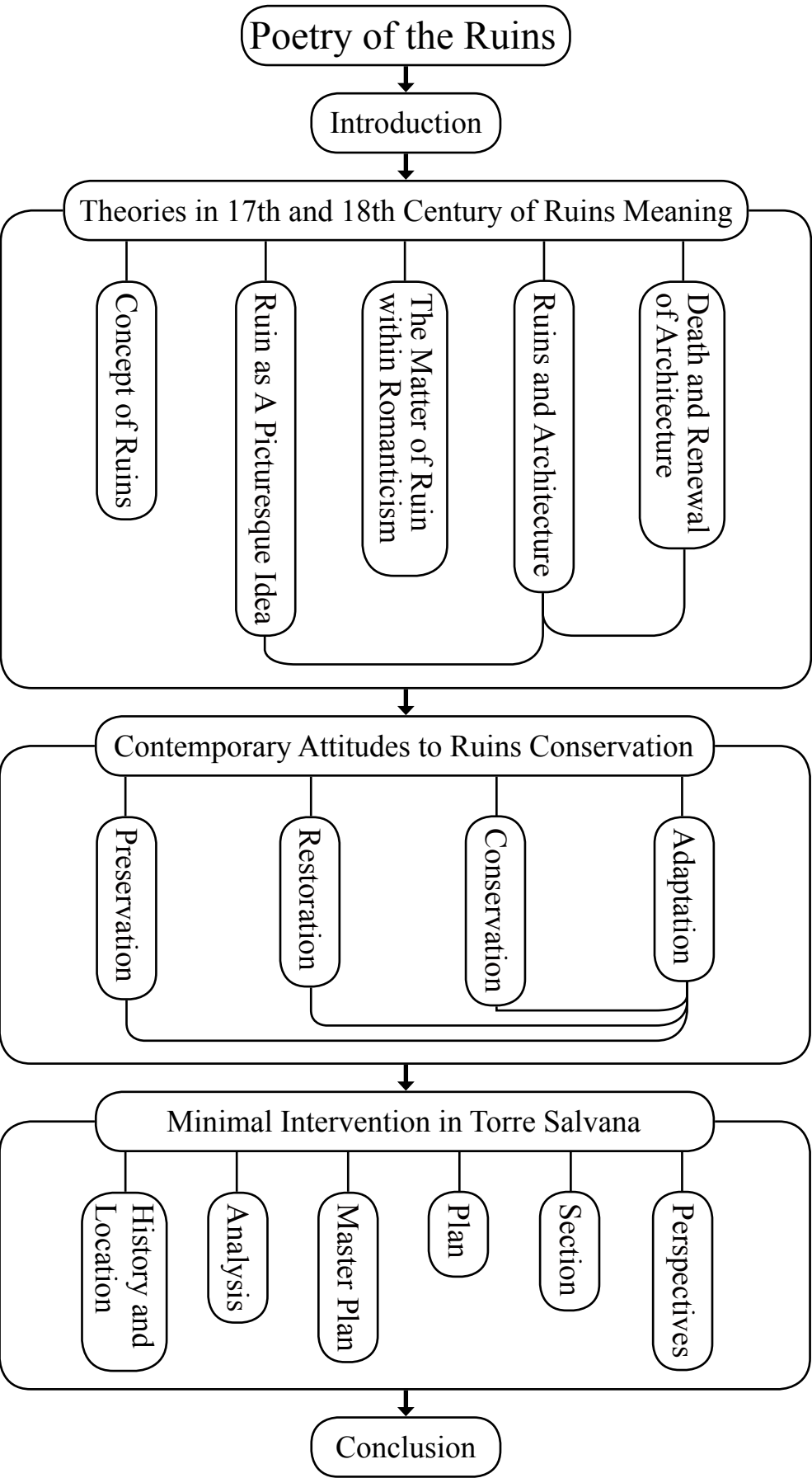
As shown in the 2015 "The Strength of Ruins" exhibition held in Rome, contemporary architectural projects are required to face all these ruins. Today, the large amount of debris and ruins in the city provide huge opportunities for architectural projects that should treat these elements as opportunities to explain and spread ancient things and transplant new perspectives into existing environments.

[3] F. Speroni, *La rovina in scena, per un'estetica della comunicazione*; Maltemi editore, Roma 2002; p. 7.

[4] G. Simmel, *Die Ruine*, in *Philosophische Kultur: Gesammelte Essays*, Klinkhardt, Leipzig 1911; *La rovina*, "Rivista di Estetica", n.8; pp. 121-122.

[5] M. Augé, *Le temps en ruines*, ditions Galilée, coll. "ignes fictives", Paris 2003. *Rovine e Macerie; Il senso del tempo*, Bollati Boringhieri, Torino 2004; p. 42.

Framework



01.

**THEORIES IN 17TH AND 18TH
CENTURY OF RUINS MEANING**

1. Theories in 17th and 18th Century of Ruins Meaning

According to the analytic psychology of Swiss psychologist Carl Jung: "Everyone's heart carries memories or primitive images from ancient ancestors."^[6] The prototype is a reflection of the "collective image" of the human spirit. When a prototype conforming to a specific scene appears, the prototype can be activated, awakening people's collective memories, and producing feelings that resonate with it.

As a historical archetype image, the "ruin" landscape is the product of the precipitation of historical experience. It condenses the feelings, cognition and emotions under the historical memory. According to the reversible duality of archetypes proposed by Jung: on the one hand, people create "ruin" art according to the collective subconscious or memory archetype; on the other hand, in the process of externalization of art, people discover in "ruin" art prototype.

In this sense, the "ruin" prototype is not only a carrier of landscape language in natural landscapes and gardens, it also reveals the potential historical memory of the times; and it is also the material entity of the romantic aesthetic paradigm under the influence of historical culture, namely The representation of the "Ruins" archetype symbolizes people's subconscious romanticism.

1.1 Concept of Ruins

Jean-Jacques Rousseau (Figure 1-1) was a Geneva-based philosopher, writer and composer. His political philosophy influenced the Enlightenment movement throughout Europe, all aspects of the French Revolution and the development of modern political, economic and educational ideas.

In Jean-Jacques Rousseau's book "Basic Political Work", he discussed his beliefs in morality, reason, science and art, inequality, political economy, social contract, and state of war. The Genevan philosopher Jean-Jacques Rousseau, born in the 18th century, believed

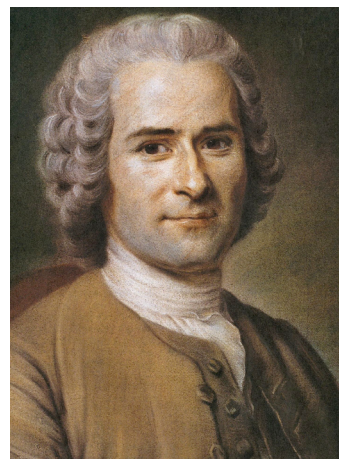


Figure 1-1. Jean-Jacques Rousseau, 1778

[6] C. G. Jung, *Memories, Dreams, Reflections*, Vintage; Reissue edition, England, 1989.

that progressive ideology undermined human morality.

He said in the "Discourse on the Arts and Sciences" that his philosophy is based on the belief that reason is not natural and may be harmful to humans. An excerpt from "Basic Political Works" reads: "Astronomy is born with superstition, ambition, hatred, flattery, lying; greedy geometric futile physics; all of this, even the moral philosophy of human pride. Therefore, science and art originated from our vices. If their merits are attributed to our virtues, we will have no doubt".^[7] He doubted that scientists find rationality in everything, and believed that people discovered the world out of "vain curiosity".

Rousseau's philosophy against rationality involved the ruins of the empire because the empire depended on expansion and progress. In "Discourse on the Arts and Sciences, Part Two," he said: "People once and for all know that nature wants to protect you from science, just like a mother grabs a dangerous weapon from a child, all the secrets she has hidden from you It 's all her many sins that protect you, and the difficulty you have encountered in teaching yourself is not her kindness. People are unjust; if that kind of experience made them born to learn misfortune, it 's even worse."^[8] Rousseau clearly explained how humans should not learn the essence of the world by themselves. He believed that those who continue to do so are unjustified. In an empire that expanded like the Roman Empire, they ended up in chaos and destruction.

Rousseau's ideas are also related to the ruins of the empire, because he discussed how we can make us a better society if we do not continue to progress, because all the empire was trying to do is to cause ruins. Rousseau believed: "By then, more people will become healthier and society will be more peaceful. However, these futile claims spread everywhere, with their deadly paradox, undermining the foundation of faith and destroying virtue."^[8] He essentially claimed that discovering an unknown interpretation of nature would mock the true definition of faith and virtue. This sentence can be used to illustrate the paradoxical morality of the fallen empire, which caused them to become unhealthy, unpeaceful, and eventually perish.

Ruins are ubiquitous in the Gothic, and for many good reasons. When Horace Walpole (Figure 1-2) first used the word "Gothic" to describe literature, most of the original Gothic buildings in England had fallen to ruins, and architects were building a new wave of popular imitations. All over England, sham ruins,

[7] J. J. Rousseau, *Basic Political Works*; G.D.H. Cole (trans.), Digireads.com, 2013.

[8] J. J. Rousseau, *Discourse on the Arts and Sciences*; 1750.

counterfeit battlements, artificial devastation, cryptic grottoes, towers and spires indulged the landowner's taste for all things Gothic. In fact, this popular architectural movement was probably responsible for the redemption of the word "gothic" itself, which had formerly implied savagery, or barbarism. Now, the term "gothic" is fashionable, and in the process of being redefined.

In 1752, Horace Walpole constructed a playfully recreated Gothic castle (Figure 1-3) at Strawberry Hill. It seems inevitable that the return of Gothic forms to the English landscape encouraged the literary movement.

Arguably the popular concept of ruins today has been created by 17th and 18th century romanticism from Jean-Jacques Rousseau and Horace Walpole.



Figure 1-2. Horace Walpole, 1797



Figure 1-3. Gothic castle at Strawberry Hill, William Marlow

1.2 Ruin as A Picturesque Idea

The concept of the "picturesque" was created by the English clergyman, artist, and writer William Gilpin (Figure 1-4) in his 1768 art treatise *An Essay on Prints*, in which he defined the picturesque — rather tautologically — as "that kind of beauty which is agreeable in a picture."^[9]



Figure 1-4. William Gilpin, 1804

In later publications Gilpin developed the concept more fully. The picturesque may be thought of as halfway between the beautiful, with its emphasis on smoothness, regularity, and order; and the sublime, which is all about vastness, magnitude, and intimations of power; the picturesque must combine aspects of both of those. A picturesque landscape would have characteristics of roughness (which includes textured or variegated surfaces) — indeed, Gilpin wrote that "roughness forms the most essential point of difference between the beautiful and picturesque" — and an absence of regular or linear elements, and would effectively orchestrate a number of additional compositional elements: distance, light/shadow, "variety," and perspective. In Gilpin's words, "Picturesque composition consists in uniting in one whole a variety of parts...."^[9]

Of considerable importance in the idea of the picturesque is the idea that it is an aesthetic of effect; for all intents and purposes, it is an aesthetic that almost does not exist independently in nature, but only in its perception by the viewer -- and particularly in its arrangement.

This is why Gilpin's definition of "picturesque" is tautological; it is not so much a naturally occurring phenomenon as it is a created one, created primarily by painters but also by trained observers. Gilpin in fact wrote an essay on "Picturesque Travel," effectively explaining how to "create" the picturesque in your mind's eye when you view landscapes.

As Gilpin wrote in "On Picturesque Beauty," beautiful objects are "those which

[9] W. Gilpin, *An essay on prints*; Gale ECCO, Print Editions, 2010.

please the eye in their natural state"^[10] while picturesque sights "please from some quality capable of being illustrated in painting.

The ease with one category of aesthetic blends into another was evidenced by the fact that Gilpin himself often referred not to "the picturesque," but to "picturesque beauty." From his painting *Mountainous Landscape with Ruin* (Figure 1-5) which showed the ruin had been part of landscape in the sence, ruin is not an elegant building with perfect appearance but it's beautiful due to it's reflecting the past.

The picturesqueness of ruins, which exhibit the "roughness" Gilpin found so important, was made manifest in Gilpin's explanation of why a conventionally beautiful object, such as a formal piece of architecture, is out of place in a picture: "A piece of Palladian architecture may be elegant in the last degree. The proportion of its parts -- the propriety of its ornaments -- and the symmetry of the whole may be highly pleasing. But if we introduce it in a picture, it immediately became a formal object, and ceased to please. Should we wish to give it picturesque beauty, we must use the mallet instead of the chisel; we must beat down one half of it, deface the other, and throw the mutilated members around in heaps. In short, from a smooth building we must turn it into a rough ruin. No painter, who had the choice of the two objects, would hesitate a moment."^[10]



Figure 1-5. *Mountainous Landscape with Ruin*, William Gilpin

[10] W. Gilpin, *Three essays: on picturesque beauty; on picturesque travel; and on sketching landscape: to which is added a poem, on landscape painting*; Gale ECCO, Print Editions, 2010.

1.3 The Matter of Ruin within Romanticism

Caspar David Friedrich (Figure 1-6) was a 19th-century German romantic landscape painter and was generally considered to be the most important generation of his generation German painter. He was known for his medium-term fable landscapes, usually with pensive figures against the night sky, morning fog, barren trees or Gothic ruins. His main interest was contemplation of nature, and his usually symbolic and anti-classical works attempted to convey a subjective emotional response to the natural world. Friedrich's paintings presented the existence of humans in a narrow landscape in a reduced perspective. According to the art historian Christopher John Murray, the proportion of these characters has been reduced to "The observer's eyes are toward the metaphysical dimension."^[11]



Figure 1-6. Caspar David Friedrich, 1840

Oakwood Abbey (Figure 1-7) is an oil painting by Caspar David Friedrich. It was painted in Dresden from 1809 to 1810, and was exhibited together with "Monk by the Sea" in the exhibition of the Prussian Academy of Art in 1810. At the request of Friedrich, Oakwood's monastery was hung under the Monk by the Sea. This painting is one of more than two works by Friedrich, including a cemetery or grave.

This large painting is a way for Friedrich to use his painting skills to express problems in human life. In this painting, Friedrich painted an old monastery in the center. Some people brought the coffin into the monastery. The artist tried to convey the sense of time passing by the people who passed away. There is a feeling of cold around the area. The remains of the monastery show this worn window without glass. It can be seen that nature exists forever, and human creation is temporary.

A group of monks, some of whom carried the coffin, walked towards the gate of a Gothic church in the center of the painting. Only two candles were lit. A newly dug grave yawned in the snow in the foreground, and several crosses could be clearly

[11] C. John Murray, *Encyclopedia of the Romantic Era 1760-1850*, Routledge; Edition: 1, 2004.

seen nearby. The lower third of the picture is in the darkness-only the highest part of the ruins and the top of the leafless oak are illuminated by the sunset. The waxed crescent moon appeared in the sky.

David Caspar Freiderich's Oakwood Abbey was obvious symbolism of ruins represent the climax of interest in the matter of ruin within romanticism.



Figure 1-7. Oakwood Abbey, 1819

1.4 Ruins and Architecture

Piranesi (Figure 1-8) was a printmaker, architect and heritage site, had produced thousands of printed books and participated in archaeological excavations. The skill, strength and evocative power of his work subsequently influenced romantic, surrealist and cubist artists. His portrayal of the prison in Venice still inspired the background of the film, artists, architects, designers, vegetarians and archaeologists and had a huge influence on European culture and art. His "Carceri d'Invenzione" was one of the first and most famous collections (Figure 1-9) carved by Piranesi, where he turned Roman ruins into wonderful and excessive dungeons. Dark passages, steep stairs to incredible heights, strange galleries. These prints had a huge impact on romanticism in the 19th century and also played an important role in the development of surrealism in the 20th century.

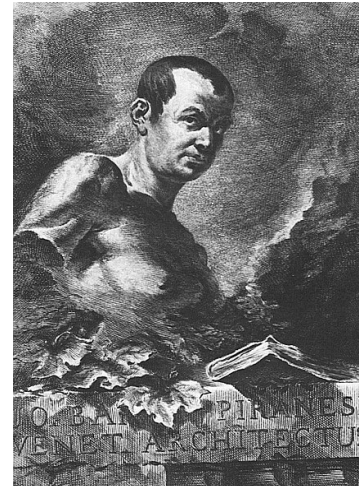


Figure 1-8. Giovanni Battista Piranesi, 1788

He studied architecture in Venice and moved to Rome in 1740. The ruins of the Roman Empire inspired his enthusiasm to represent them. At the time, archaeology was not a strict science. In many cases, archaeology was just robbery. Combining descriptive enthusiasm and fantasy, Piranesi created a report about Roman ruins and ongoing discoveries. His enthusiastic copying and interpretation of ancient Roman monuments made important contributions to the formation and development of neoclassicism. These engravings include reliable and accurate images of existing sites and fictitious replicas of ancient buildings, where changes in scale and juxtaposition of elements help enhance their solemnity.

During his career, Piranesi has produced more than 1,000 prints. There are roughly three themes: the Roman cityscape [Veduta di Roma]; Roman antiquities [Antichità Romane]; the imaginary prison [Carceri d'Invenzione]. And his main creativity is focused on creating architectural fantasy works as an experiment and experiment, which is another important role of him as an architect.



Figure 1-9. Collection of "Carceri d'Invenzione"(Imaginary Prisons), Piranesi, 1745-1760

01. Tavola di intestazione / Title Plate; 02. L'uomo sulla roccia / The Man on the Rock; 03. La torre circolare / The Round Tower; 04. La gran piazza / The Grand Piazza; 05. Il leone in bassorilievo / The Lion Bas-Reliefs; 06. Il fuoco fumante / The Smoking Fire; 07. Il ponte levatoio / The Drawbridge; 08. La scalinata con i trophy / The Staircase with Trophies; 09. La ruota gigante / The Giant Wheel; 10. Prigionieri sulla piattaforma / Prisoners on a Projecting Platform; 11. L'arco con la conchiglia / The Arch with a Shell Ornament; 12. Il cavalletto / The Sawhorse; 13. Il pozzo / The Well; 14. L'arco gotico / The Gothic Arch; 15. Il muro con la lampada / The Pier with a Lamp; 16. Il muro con le catene / The Pier with Chains

When Piranesi returned to Rome from Venice in 1748, Rome entered an important new era in the city's own development history, and also provided this young artist with numerous theaters and rich Visual experience. After the ancient remains lost their original use value, these decaying ruins have played another role, as a once glorious proof of Rome, attracting a group of tourists and archaeologists. After the decline of the Roman Empire, many man-made and natural changes sounded to the historical remains existing in this ancient city. The entry of prints as travel souvenirs into the tourism market is a phenomenon that has existed since the late period of literature and art. The more complicated urban landscape paintings of French artists Dupérac and Lafréry at that time were very popular. In the 17th century, Stefano della Bella and Israel Silvestre took the development of topographic landscape painting to a new peak.

Fanatic Fantasy: Taking the "Imaginary Prisons" as an Example

Thomas De Quincey had a description of the "Imaginary Prisons". He called them "dreams". although this analogy is due to the illusion caused by the author taking drugs, but this kind of secret and dark description is very consistent with the feeling of "Prison":

"Many years ago, when I was looking over Piranesi's *Antiquities of Rome*, Mr. Coleridge, who was standing by, described to me a set of plates by that artist, called his *Dreams*, and which record the scenery of his own visions during the delirium of a fever. Some of them (I describe only from memory of Mr. Coleridge's account) represented vast Gothic halls: on the floor of which stood all sorts of engines and machinery, wheels, cables, pulleys, levers, catapults, &c. &c. expressive of enormous power put forth and resistance overcome. Creeping along the sides of the walls, you perceived a staircase; and upon it, groping his way upwards, was Piranesi himself: follow the stairs a little further, and you perceive it come to a sudden abrupt termination, without any balustrade, and allowing no step onwards to him who had reached the extremity, except into the depths below. ... raise your eyes, and behold a second flight of stairs still higher: on which again Piranesi is perceived, but this time standing on the very brink of the abyss. Again elevate your eye, and a still more aerial flight of stairs is beheld ... and so on, until the unfinished stairs and Piranesi both are lost in the upper gloom of the hall.

– With the same power of endless growth and self-reproduction did my architecture proceed in dreams. "[12]

[12] T. D. Quincey, *Confessions of an English Opium Eater*; Penguin Classics, 2003; p. 374.

Regardless of whether the buildings in these fantasy came from the author's almost crazy brain, it was certain that the picture the author faces must come from a painter who is good at imagination. Many Piranesi's architectural design works and landscape drawings showed his extraordinary imagination, even if he was only drawing a building that only needed to be faithfully depicted. But there was no work like the "Imaginary Prisons" that allowed him to release his imagination so freely. In addition to the eerie and horrible scenes in these nightmarish prison scenes and the torture chambers, the magnificent composition of this series of works can highlight the terrible and gloomy details, and can also make people wander in the prison constructed by Piranesi, but they can't find an exit.

There are more than one reason for the weird feeling that "Prison" brings to people. People can not only perceive the labyrinth of organizational layout, but also a series of incoordination and transient transformation of space. In such a special space, people's judgments on "inside" and "outside", "above" and "below" are relatively vague, because there is no absolute reference point, the axis and overall direction in the space layout are unstable. In order to achieve this effect, Piranesi mainly violated the limitation of two principles, namely the consistency of dimensions and the consistency of perception space. At the same time, the overall perspective must be looked up from below to create a floating illusion.

Piranesi's violation of common sense spatial rules, the third painting "The Round Tower" (Figure 1-10) is a good example, in which the violation of the proportion of the building caused a dramatic effect. At the bottom of the picture, there is a staircase leading to the bottom of the fortress, and at the top of the picture, a long terrace traverses left and right, leading to the arch on the upper right. The fortress is actually part of the fortification projecting outward from the curtain wall. It acts like a pillar, supporting the arches, forming a huge internal space. At the same time, the fortress is a part of the outside of the building and a static part of its internal space. The bridge connected to the wall expands the outer space and infinite possibilities of the fortress wall. The various architectural elements we analyzed here: stairs, fences, stones, arches, platforms, and small figures, all of varying sizes. When we use the stairs as the reference object, the size of the fortress is like the size of a normal tower, but referring to the stairs and the characters, the boulders and fences next to it look out of proportion. The terrace at the top of the fortress looks too large, and the arch on the right is as large as the terrace. Therefore, it can be summarized that the three scenes in the picture are stacked together: stairs, fortress, arches and the internal space formed by them.

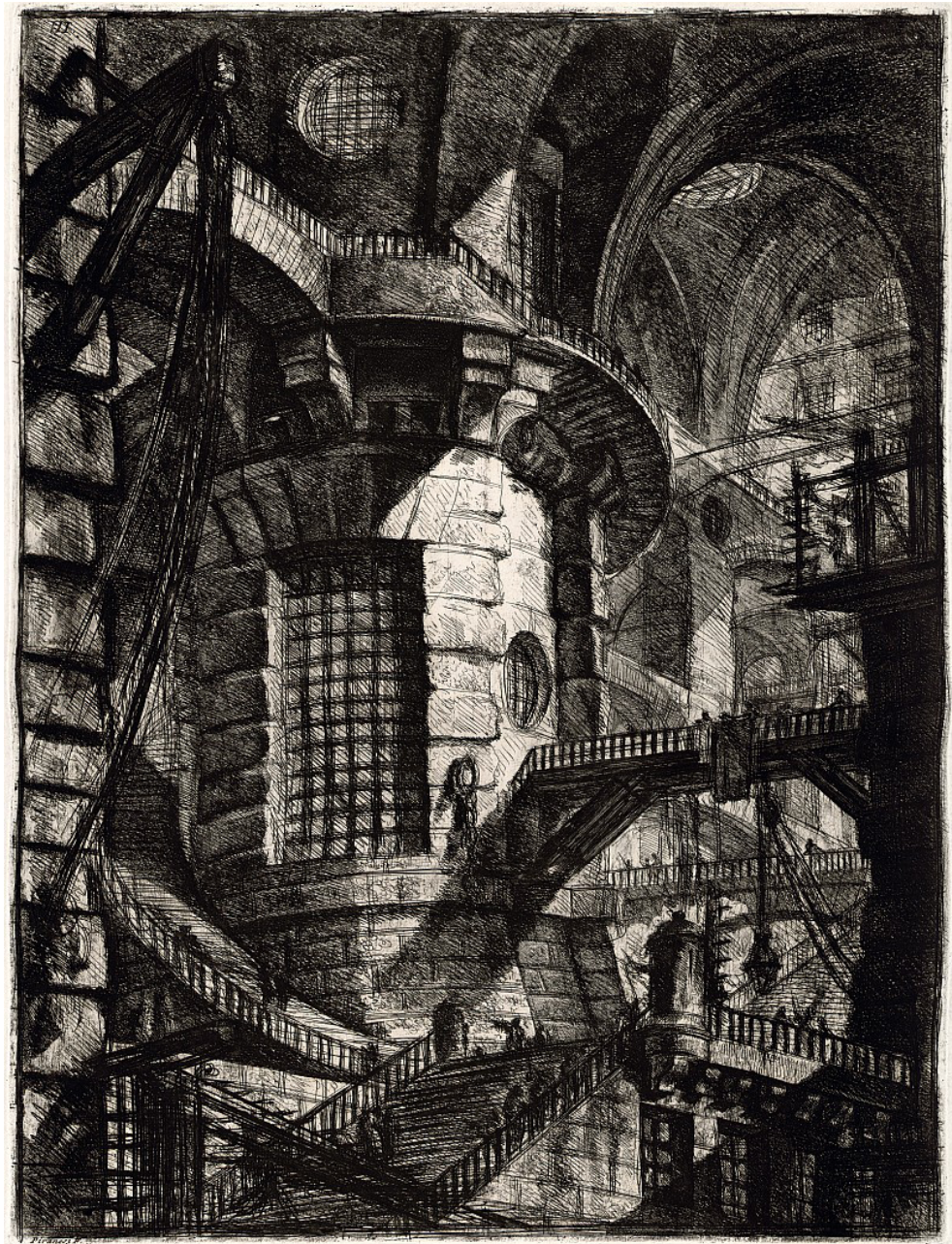


Figure 1-10. The Round Tower, Piranesi, 1761

Due to their different distances from the viewer, they have retained their normal size in people's cognition, and they are also harmoniously matched with each other. Compared with arches and fortresses, stairs and bridges are represented as if they were depicted from a great distance. So the phenomenological effect embodied in it is obvious, and the tower looks enlarged. In addition, there are iron chains and steel cables in the painting, which are enlarged disproportionately, the whole picture seems to be a model for the villain. The existence of the characters seems fragile and insignificant, this may be deliberately set by Piranesi. The layout below, in addition to highlighting the dark confinement of the entire space, also shows the weakness and insignificance of people in the mysterious space created by themselves. Vogt-Gonier observed that in some of these prints, such as the 14th print of "Prison", the three-dimensional space intervenes in the two-dimensional plan, the depth of the space is torn, and the breadth of the space is shrinking.^[13]

The real ruins: Taking the "Paestum" series as an example

With the trend of "archaeological fever", the Temple of Paestum not far from the south of Naples had also entered people's sight. By the 1760s, more research with technical content was also published, the most famous being 1768 Ruins of Paestum by Thomas Major in 2014. In the late 1960s, three-dimensional souvenirs also came into being. Charles Townley was the top British collector of antiquities. He and Vincenzo Brenner studied these temple ruins and made these gods. The cork model of the temple also has a series of survey paintings. Augusto Rosa joined Piranesi's expedition in 1777 and did such a work. A few decades later, when Dominique Padiglione made the models of these three temples, such models were still very popular, and this was already after 1802.^[14] In the mid-1770s, Piranesi realized the necessity of recording important classic buildings in Italy. However, the published texts and a large number of explanations did not directly mention the Greek-Roman controversy. Piranesi implied these temples are magnificent because they stand on the Italian territory and bear many frosts and bitter rains. He emphasized how ancient architects used creativity to express freedom in these historical ruins.

In the sketches and prints about the Temple of Paestum, the archaeologists and antiquarians who went to investigate are well aware of the surrounding environment of each temple, whether looking out to the west of Salerno Bay. The horizon is still the undulating peaks on the other side. The light changes at different times of the day also make the strong sunlight and shadows create different atmospheres

[13] J. Wilton-Ely, *Piranesi. The Polemical Works*; 1972; p 89.

[14] J. Wilton-Ely, *Piranesi, Paestum & Soane*; Prestel, 2013; p. 29.

and convey different messages. The potential and so many spatial elements in Piranesi's urban landscape map come from his early training when he studied stage design. He used the picture as a stage to arrange, which made the light and shadow are proper and shining in his picture. In addition to this dramatic effect of light, he also made perfect use of a special composition method, that is, to abandon the traditional center point disappearing perspective method and switch to a diagonal perspective method, which can show more perspectives and create more rich and complex spatial structure. This method was reflected in the powerful effect of "Prison", as well as a large number of indoor scenes in the Roman landscape, as well as the interior of the monuments.

Through this perspective, Piranesi was able to expand the perspective of these depictions of the Temple of Paestum and record their other components, such as the surrounding colonnade and the column, and the survivors and the interior decoration, and the distance between them. The characteristic of Piranesi's consciously creating wider landscape paintings is the overall composition he consciously chose from the creation of the first print of the Paestum (Figure 1-11) temple, and the painter overlooks the three temples from the southwest. So that you can get a panoramic view of the three temples in a limited picture.



Figure 1-11. Remains of the Ancient City Walls of Paestum, Piranesi, 1778

Influence on Architecture: Piranesi and John Soane

When talking about the influence of Piranesi on architecture, Sir John Soane was an unavoidable topic. Soane was a neoclassical architect. When Soane was young, the two had a brief intersection. Soane's architectural design style was also very personal, full of clever use of light and whimsy. When the young Soane met Piranesi in the summer of 1778, Piranesi showed him four of them-The Pantheon, The Arch of Constantine, The Arch of Septimius Severus and The Tomb of Cecilia Metella. Since then, Piranesi's ideas and revolutionary theories had had a profound and complex impact on him, and this had also helped him to create an avant-garde, highly recognizable design with Robert Adam style. The influence of Piranesi on Soane can be easily seen from the number of Piranesi works in the Soane Museum. Soane not only had a collection of Piranesi's paintings, but also a large number of etchings, he also collected some restored antiquities. For Piranesi, the works created during the period when his style was formed were bold and highly radical, but the classicist style continues to penetrate into his mature works.

By 1780, Horace Walpole saw the potential of "the noble ideal of Piranesi" in the tribute to this great Venetian, which exceptionally regarded him as an inspiration of modern architects. Inspired by the creative thinking in the improved "Prison", Soane designed a series of unique interior decorations(Figure 1-12) that are vague and complex in space and structure. Due to the colored glass and mirrors used in it, the direct illumination of the light and the refraction with these media produced a vivid effect, and the audience's feelings and emotions were mobilized, as if entering a kaleidoscope-like world in. This delicate effect was strengthened in the architectural elements on each floor, including reliefs, sculptures, castings, and various ornaments, all of which are intended to play a catalytic role in this sense of architectural imagination.

French architect Étienne-Louis Boullée, who had never been to Italy to study, only learned about the Roman ruins through the eyes of Piranesi. However, the architectural design drawings he created are like Piranesi, with picturesque scenery. He believed that experimental and imaginative innovations are also important for architectural design. Boullée absorbed part of Piranesi's ideas and tried to use his imagination in his architectural design in order to explore some new architectural styles. For example, the museum design project he was responsible for in 1783 (Figure 1-13) is similar to the Royal Courtyard (Figure 1-14) created by Piranesi 40 years ago. Among them, he used the stitching and conversion of geometric shapes,



Figure 1-12. The Breakfast Room in Soane's Museum. Photo by Derry Moore

and the clever and powerful light design which all highlighted the solemn and chic monument. However, the French architect Boullée gradually abandoned the classic simplicity, and began to shift to the complexity of Piranesi's early style.

Therefore, we still have to turn our eyes back to Soane (see the next chapter). In the other side of the UK, Soane's design is still very personal, and he used imagination of ruins to bring back the past.

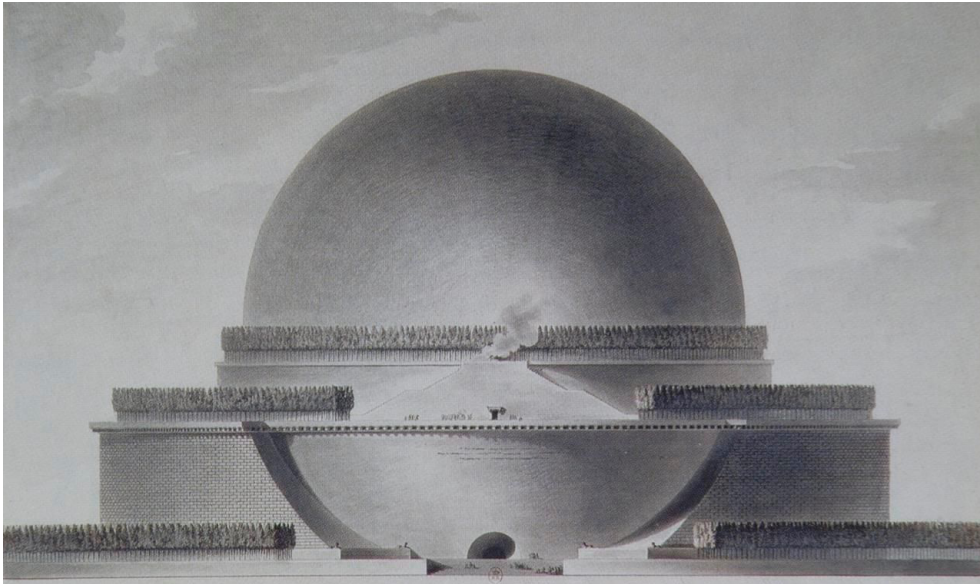


Figure 1-13. Project for a Museum, Étienne-Louis Boullée, 1783



Figure 1-14. Royal Courtyard, Piranesi, 1743

1.5 Death and Renewal of Architecture

Sir John Soane (Figure 1-15), British architect notable for his original, highly personal interpretations of the Neoclassical style. He is considered one of the most inventive European architects of his time. As a country house architect, Soane had modest success until he was appointed architect to the Bank of England in 1788. Various government appointments followed, and in 1806 he succeeded as professor of architecture at the Royal Academy.^[15]



Figure 16. John Soane, 1837

Following the mention in the previous chapter, after Soane met Piranesi while studying in Italy in 1778, he returned to the United Kingdom and embodied imagination and ingenuity in his architectural design. The Bank of England (Figure 1-16, 17), which he was responsible for rebuilding in 1791, is an example. What he showed is not how to borrow classical motifs, nor is it limited by the framework of classical architecture, but to make full use of light and architectural structure, and even the bank's rotunda was regarded as a magnificent ancient ruin (Figure 1-18), it shows the ingenious combination of inspiration and ingenuity, which made this reconstruction project unique in Europe at that time.

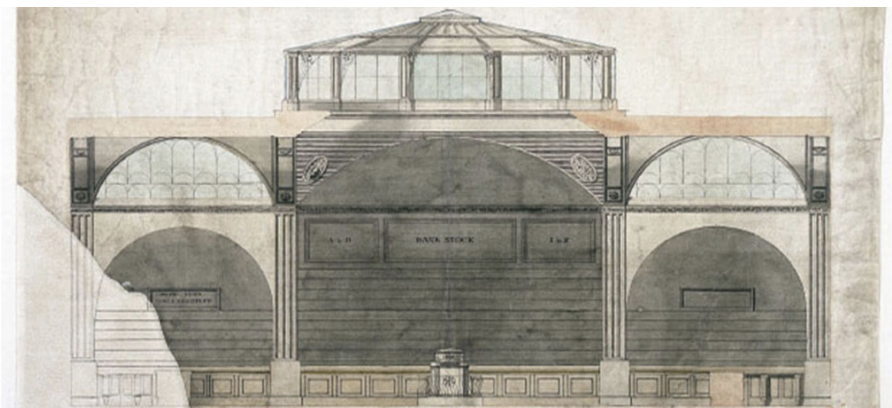


Figure 1-16. Section of Bank of England

[15] D. Gillian, *John Soane : An Accidental Romantic*; London : Yale University Press, 1999.

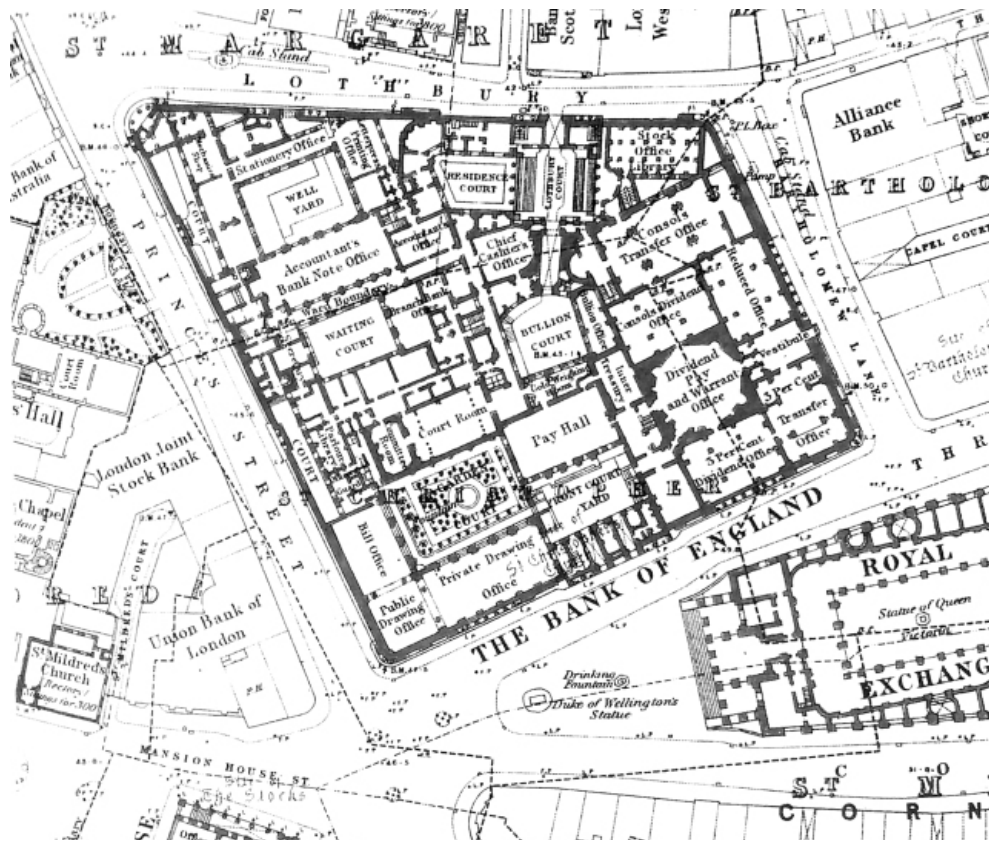


Figure 1-17. Ground Floor of Bank of England

The Bank of England might well have been designed by the Laplace's demon. The ruin was the fatal triumph of nature over man, the work of the Great Architect of the Universe. The one to which Sir John Soane aspired to be, stability in architecture was a sign of its resistance to future transformation. It is precisely because the ruins can evoke the association of ideas that it arouses our interest. In his design drawings, the intention of the ruin archeological landscape is often highlighted. The Bank of England ruins sought to show that the future could be predicted, leaving no room for evolution or indeterminacy. Buildings were closed systems that retain their qualities over time. Thus, duration was a proof of its immutability over time. But in the case of the Bank of England the ruin could also be understood as its expiration or obsolescence. And so, although planned in a reversible and deterministic way (Figure 1-19), the insight of Soane and Gandy was the beginning of an approach oriented to the future.



Figure 1-18. John Soane's Rotunda of the Bank of England in Ruins Joseph Michael Gandy



Figure 1-19. Imagined ruins of John Soane's Bank of England, Joseph Michael Gandy, 1830

From August to September 1812, British architect and professor of the Royal College of Architecture John Soane wrote a manuscript for his house (Figure 1-20) in London, entitled "Crude Hints towards an History of my House in Lincoln's Inn Fields" (Figure 1-21). This "Hints" is known as the most bizarre and puzzling text in the history of British architecture. Although the title is marked as "History", the content is fictitious. In "Hints", Soane assumed that he is a researcher of antiquities living in the future who is facing a huge ruin in the city and speculating on his past history, Soane's imagination that his house became a ruin was not out of nothing. At the time, Soane was demolishing and rebuilding the old house he had just bought. His engineering records showed that as of August 30, the date of the first appearance in "Hints", the brick walls of the house have been laid, and some floors have been installed. The entire house was both under construction and appeared to be demolished.^[16] However, the ruin described in "Hints" is not just an isolated recent construction entity, but is mixed with the underground foundation and the older ruins in the stratum. Soane wrote: "This building might have been bigger than the building (ruins) you see now-it seems to have been expanded at different times, and from a decorative point of view, it may be composed of the ruins of other older buildings ." In Soane's imagination, the building was like the ancient Roman city. "The ground level was obviously elevated during the years of migration."^[18] The past catacombs, "are very few now."^[18]



Figure 1-20. John Soane's House Museum, London

[16] H.Dorey, *Visions of Ruin: Architectural Fantasies& Designs for Garden Follies; "Notes to Crude Hints"//Sir Soane's Museum ed, London, 1999; pp 75-78.*

[17] H.Dorey, *Visions of Ruin: Architectural Fantasies& Designs for Garden Follies; "Crude Hints towards an History of my House in Lincoln's Inn Fields"//Sir Soane's Museum ed, London, 1999; pp 61-74*

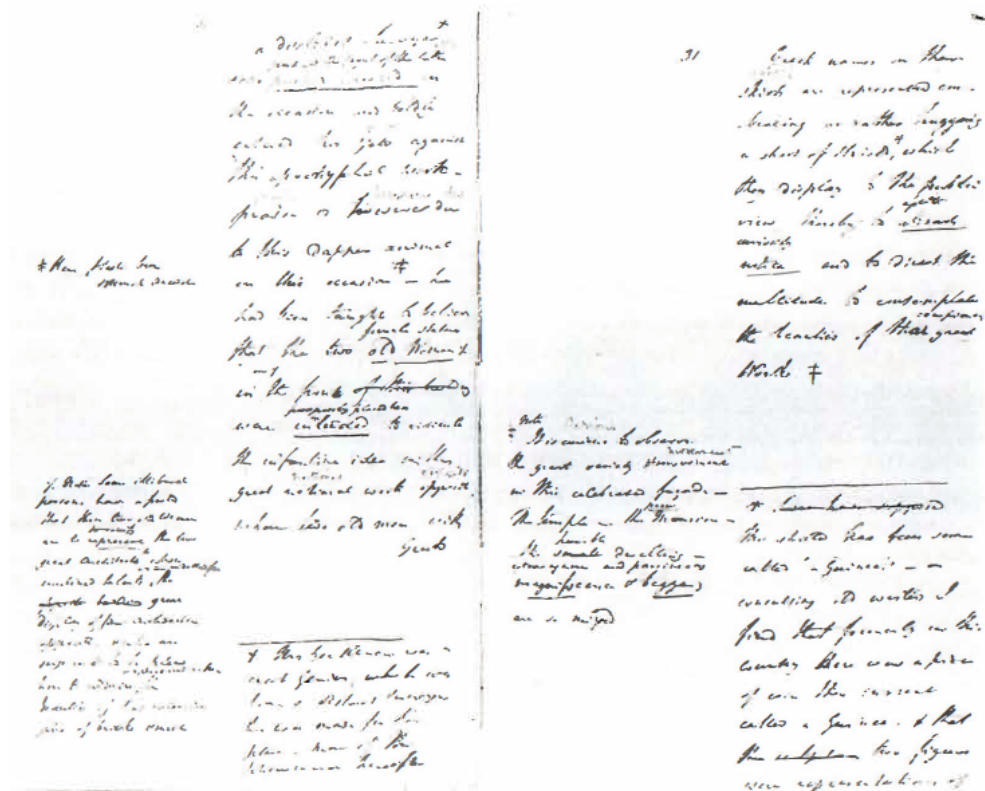


Figure 1-21. John Soane's Manuscript "Crude Hints", 1808

"Hints" also seems to anticipate the effects of Soane's residence: as a private museum, it displays a large collection of fragments of ancient buildings from around the world, plaster models and castings. What is striking is that Soane was neither a typical neoclassicist who organized the collections aesthetically on the principle of symmetry and balance in order to express the flawless and eternal perfection; nor was it like the British Antiquities Research Association sorting the cultural relics in time and space in order to establish an empirical British history; but as a visitor at the end of the 19th century recorded, Soane's collection "was completely chaotic as if it had experienced an earthquake".^[18] In the picturesque space organization method that Soane is good at, the interior of the house is full of intersecting multiple viewpoints, unexpected sight organization and broken and diverse spatial forms (Figure 1-22).

[18] A. Michaelis, *Ancient Marbles in Great Britain*; Cambridge, 1882; p 64.



Figure 1-22. Interior of the Sir John Soane Museum

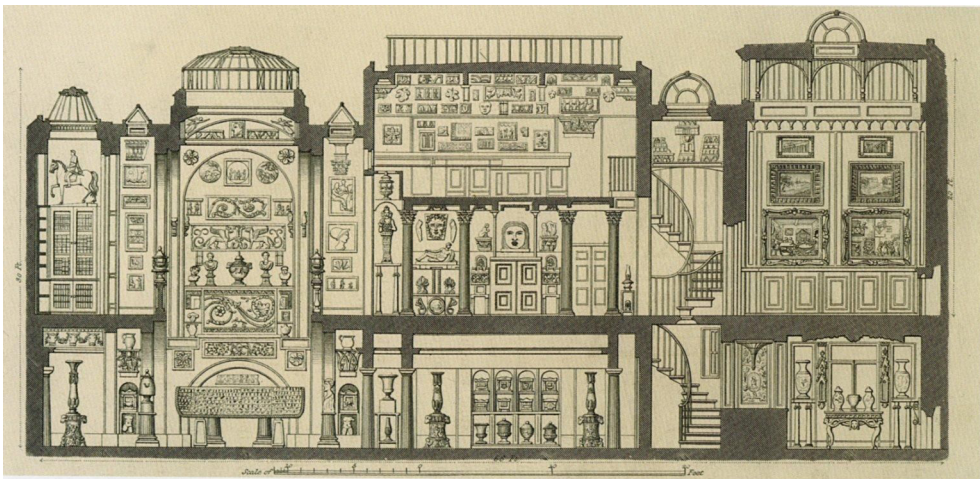


Figure 1-23. Section of the Sir John Soane Museum



Figure 1-24. The Main Staircase



Figure 1-25. The Drawbridge, Piranesi, 1761

In the interpretation of "Hints", we found that Soane mentioned the image of "Lost Staircase" (Figure 1-23, 24). The disappearing stairs in the ruins mentioned here may be the Italian artist Piranesi (see previous chapter) "Prison". The imagination of the dark stairs in the series (Figure 1-25), which implies Soane's suspicion of abstract concepts in the classical system. The abstract concept in the classical system is that in the metaphysical philosophy of Plato and Aristotle, the soul is higher than the body, and the abstract thinking is higher than imagination and emotion, which is the spiritual domination. This system was strongly challenged by Piranesi's "Prison" series of prints. In Piranesi's performance, "Prison" escapes the control of the linear perspective representing God's gaze, the stairs are in darkness, broken, intertwined, and do not know where to lead (see previous chapter), thereby suggesting this rebellious artist for the dissolution of the classical symbol system. Soane quoted the image of this dark staircase and clearly understood Piranesi's intentions. The stairs are no longer there, and the monument is in ruins. Soane disguised as a researcher of antiquities was attracted by the huge submerged underground part of the ruin. He emphasized: "We still don't know anything about this structure, and wanting to do anything precise... is not easy."^[18]

[18] H.Dorey, *Visions of Ruin: Architectural Fantasies & Designs for Garden Follies*; "Crude Hints towards an History of my House in Lincoln's Inn Fields"/Sir Soane's Museum ed, London, 1999; pp 61-74

02.

**CONTEMPORARY ATTITUDES
TO RUINS CONSERVATION**

2. Contemporary Attitudes to Ruins Conservation

Definition of Different Concepts^[19] Used in This Chapter

According to Shabnam Yazdani Mehr's work "Analysis of 19th and 20th Century Conservation Key Theories in Relation to Contemporary Adaptive Reuse of Heritage Buildings" who is from Griffith University, 4 different concepts of preservation, restoration, conservation, and adaptation have been defined. In this chapter, those 4 concepts are necessarily mentioned and important to develop further thesis.

Terms	
Preservation	Maintain the current state of the building by buildings by adopting appropriate maintenance. maintain the existing form, integrity and material of the building are damaged, the condition of is similar to maintenance, although it involves damage.
Restoration	By removing fouling or reassembling existing structure somewhere to a known early state. materials. Restoration involves "restoring specific date or event". The process of restoration is used.
Conservation	All processes that take care of a place to retain preservation, restoration, reconstruction and adaptation. take care of the natural and cultural importance.
Adaptation	Any work done to change the function, period, location to suit the recommended compatible place, and adaptation should include minimal changes. Adaptation means making small changes to another use, and sometimes seems to be the

[19] S. Y. Mehr, *Analysis of 19th and 20th Century Conservation Key Theories in Relation to Contemporary Adaptive Reuse of Heritage Buildings*; Heritage, 2019.

Definitions

slowing down the deterioration of the building. Slow down the deterioration of existing
ce methods. **Preservation is "the act or process of taking the necessary measures to
material of the historical heritage"**. Due to its historical importance, even if certain parts
f the building must be maintained. Try to avoid high levels of natural decay. **Preservation
volves comprehensive work and procedures to maintain the structure and mitigate**

ng components without introducing new materials, it is possible to restore the existing
Restore the current structure of the building to a known previous state without using new
**the physical and/or decorative condition of the old building to the condition of a
toring a building to its original state. In this way, raw materials and technology are**

n its cultural significance. Including maintenance; depending on the situation, may include
adaptation; usually it will be a combination of multiple of them. **Conservation is a way to
rtance of the place and can maintain that importance.**

formance and capacity of the building (beyond the scope of maintenance). Modify the
usage. Adaptation can only be accepted if it has little effect on the cultural significance of a
changes to important structures, which can only be achieved after considering alternatives.
**or fairly flexible changes in terms of reversal potential. Adaptation means adapting to
e best way to protect historic buildings.**

2.1 Preservation (anti-restoration)

Status of Intervention

Minimal  Maximal

Maintain the current state of the building by slowing down the deterioration of the building. Slown down the deterioration of existing buildings by adopting appropriate maintenance methods. Preservation is "the act or process of taking the necessary measures to maintain the existing form, integrity and material of the historical heritage".^[20] Due to its historical importance, even if certain parts of the building are damaged, the condition of the building must be maintained. Try to avoid high levels of natural decay. Preservation is similar to maintenance, although it involves comprehensive work and procedures to maintain the structure and mitigate damage. John Ruskin and William Morris were the representatives of the theory of "preservation", they criticized Viollet-le-Duc's "stylistic restoration" theory and were the pioneers of the preservation (anti-restoration) movement in the 19th century.

2.1.1 John Ruskin (1819–1900)

In the 19th and 20th centuries, restoration and anti-restoration were the focus of discussion and debate. It is understood that the focus of anti-remediation is to preserve the original design of the building in its own history and background, while restoration required changes to certain parts of the heritage building when necessary.

Viollet-le-Duc's restoration theory has been widely criticized over time. In England, John Ruskin was one of the first leaders of the contemporary conservation movement and a critic of Viollet-le-Duc's theory of stylistic restoration. Ruskin believed that restoration may lead to historical tampering, so he recommended regular maintenance. John Ruskin (1819–1900) believed that the meaning of restoration was not fully understood. He defined restoration as the possible damage to buildings, which also led to the loss of historical authenticity. Ruskin further pointed out that in the protection of cultural relics and buildings, it was an impossible process to intervene in restoration and imitation restoration:

"It is impossible, as impossible as to raise the dead, to restore anything that has ever been great or beautiful in architecture...that spirit which is given only by the hand and eye of the workman, never can be recalled... And as for direct and simple copying, it is palpably impossible."^[21]

[20] J. Douglas, *Building Adaptation*; Routledge: London, UK, 2006.

[21] J. Ruskin, *The lamp of memory* (1849); *Hist. Perspect. Prev. Conserv*, 1849; pp 162-182.

Ruskin believed that a ruin is "corpse" and cannot be repaired, but it can be maintained. Ruskin believed that each ruin is a unique creation of the architect within a certain period of time, and cannot be imitated or restored, but can be preserved.

He believed that the restoration work was "a lie from beginning to end" because the ruins were first ignored and then repaired. Ruskin insisted on proper protection of the ruins to prevent further restoration. Therefore, Ruskin focused on and established the concept of protection, thus producing a theoretical method that rejected the so-called destructive features of Viollet-le-Duc's restoration theory. Kuipers and de Jonge^[22] stated that Ruskin emphasized the protection, protection and maintenance of the ruins, and advocated the use of real intervention rather than stylistic restoration. According to Powell^[23], Ruskin believed that past signs are irreplaceable, and these signs seem to be a ruin. As Burman^[24] stated, Ruskin prioritized the identity and work of the first builder and architect who created the building, which also became the inspiration for the current building. Ruskin had made great contributions to the protection of historical buildings around the world and was awarded the title of protector of heritage buildings. In 1874, Ruskin rejected the gold medal of the Royal Institute of Architects, arguing that the architect had caused damage in the name of restoration. Ruskin was recognized as a pioneer of the preservation (anti-restoration) movement in the 19th century.

2.1.2 William Morris (1834–1896)

William Morris was one of the key figures in the protection of British heritage buildings in the late 19th century, mainly influenced by Ruskin. In 1877, William Morris established the Society for Protection of Ancient Buildings (SPAB) in England, and focused on historical buildings as a unique work of artists of a specific historical period, thus showing the era of architecture. Even if the function of the building changes, the important unique features of the ruins should not be removed or even restored, but should be retained. Burman^[24] believed that Ruskin was the driving force behind the establishment of SPAB. SPAB is one of the oldest organizations related to world historical monuments. SPAB focuses on repair and maintenance, not restoration. The important attitudes of SPAB are "to put protection in the place of restoration" and "to stave off decay by daily care".^[25]

[22] K. Powell, *Architecture Reborn: The Conversion and Reconstruction of Old Buildings*; Calmann & King Ltd.: London, UK, 1999.

[23] M. C. Kuipers, W. de Jonge, *Designing from Heritage: Strategies for Conservation and Conversion*; TU Delft–Heritage & Architecture: Delft, The Netherlands, 2017.

[24] P. Burman, *Ruskin's children: John Ruskin (1819–1900), the good steward, and his influence today*. In *Conservation and Preservation: Interactions between Theory and Practice: In Memoriam Alois Riegl (1858–1905): Proceedings of the International Conference of the ICOMOS International Scientific Committee for the Theory and the Philosophy of Conservation*; Polistampa: Vienna, Austria, 2008; pp. 1000–1021.

[25] L. Wong, *Adaptive Reuse: Extending the Lives of Buildings*; Birkhäuser: Basel, Switzerland, 2016.

Morris believed that regular maintenance is a way to repair the ruins. However, Morris proposed that repairs with minimal feature changes will make ruin feasible. As one of the authors of the SPAB's "Declaration", Morris explained the refusal in the draft. Morris believed that the restoration of the ruins discourages future generations from studying it, because traditional buildings have undergone changes based on the repairer's feelings and the spirit of his time, thus leaving history blank.

[22]

Morris focused on repair and preservation of heritage value rather than restoration. [31] Ruskin and Morris advocated basic changes in heritage buildings in response to changes in society. The value concept of architecture was first proposed and considered by Ruskin and Morris, and then further developed by Riegl. [26] Ruskin and Morris rejected the stylistic restoration because of its pure nature, and believed that copying the original style in the form of restoration was an insult to the original architect of the heritage building.

A fresh study and conservation plan done by the SPAB in 2016, the Wimpole Tower (Figure 2-1, 2, 3 and 4), is an example and practise of Ruskin and Morris's "preservation (anti-restoration) theory. In this project, actual cleaning experiments were carried out and led to a traditional solution, which included removing vegetation, scrubbing loose and fragile stone carvings, clearing gaps

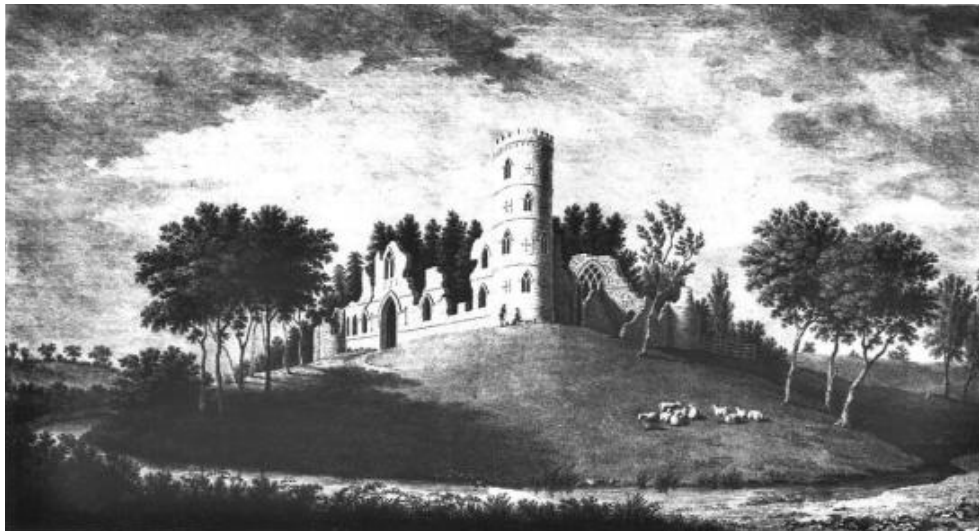


Figure 2-1. A 1777 engraving of the gothic tower at Wimpole

[22] K. Powell, *Architecture Reborn: The Conversion and Reconstruction of Old Buildings*; Calmann & King Ltd.: London, UK, 1999.

[26] O. Niglio, John Ruskin: *The Conservation of the Cultural Heritage*; Kyoto University: Kyoto, Japan, 2013.

and reorienting. In this method, natural hydraulic lime is used, and four specified mortar mixtures are used to meet the requirements of deep wall holes, lining brick and fine-faced stone relocation, and the final wall and rainwater runoff areas. Finally, the lime washing mixture is applied to a single stone, but does not disturb any stone that retains its protective surface and is covered by lichen. Today, visitors can enter the tower and become the main landscape feature of a striking area, contributing to Wimpole Park and Gardens today in a very real way.



Figure 2-2. Wimpole Tower, before works



Figure 2-3. Working process



Figure 2-4. Wimpole Tower after conservation

2.1.3 Case Study

Contemporary architecture has developed plenty of projects of ruins restoration which rise to speak different theories of ruins restoration. Learn from the projects which represent contemporary attitudes to ruins restoration is useful and can be inspiration to propose new proposal of different ruins. Then several case studies have been selected in this chapter which are great examples of architectural practise of the theories "Preservation (anti-restoration)".

2.1.3.1 Access to Castle of Jorba

Carles Enrich's intervention in the Jorba Castle at the top of Puig de la Guàrdia in the Catalan region of Anoia was designed to facilitate access to the watchtower, where the relationship with the town and territory was restored, highlighting its original surveillance function.

In fact, it can be said that this is a minimal intervention, it is a project to clean up the existing remains. Obviously, not only that, it is an intelligence and an operation that uses resources to make some wreckage valuable, during which time has accumulated forgotten.

History and site

Dominating the village of Jorba, on top of La Guàrdia hill, only a few remains of the old medieval castle (Figure 2-5) remain standing. A circular tower, several fragments of the perimeter walls and other fortifications that could be dated to the 12th or 13th century are preserved. It was the center of the barony of Jorba, ruled by the lineage of the same name, passed into the hands of the Cardonas in the late



Figure 2-5. Castle and town of Jorba, Josep Salvany, 1913



Figure 2-6. Castle after Restoration

twelfth century and the Castellolí in the fourteenth century. Later it was acquired by the Rajadell (1444), castlans of Òdena. In the 17th century it belonged to the Ponts, in the 18th century to the counts of Aranda and then to the Híxar, counts of Guimerà. It was destroyed during the First Carlist War along with its chapel.

Methodologies of intervention

The purpose of the intervention (Figure 2-6, 7, 8, 9, and 10) was to facilitate access to the watchtower, where the relationship with the town and territory was restored, highlighting its initial monitoring function, and thus inspiring its construction. The project is based on materials obtained from archaeological excavations and can be reused to create new terrain. The total volume of 300 cubic meters of extracted soil is completely used to generate a series of platforms that can be expanded and ensure a safer route to the viewing platform.

It is proposed to use a 12-meter ascending step in five areas to distinguish the two areas with different widths to adapt to the existing conditions and follow the structure marking the boundaries of the castle. The existing old path is used as a route for the first two parts of the new access right. The third part is perpendicular to the walls of the castle and provides a view of its north facade. The last two parts are tangent to the main criteria of the wall and allow direct contact with archaeological remains. After reaching the upper floors, you can enjoy the view of Jorba village and the ancient Royal Road.

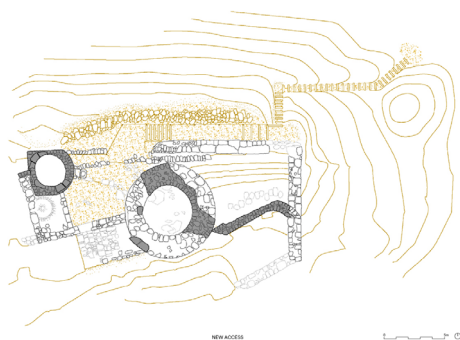
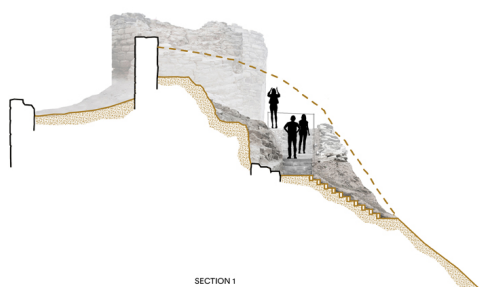


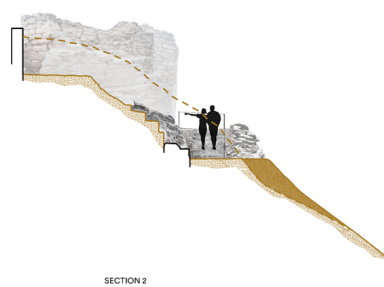
Figure 2-7. Previous State



Figure 2-8. New Access



SECTION 1



SECTION 2

Figure 2-9. Sections of The Castle after Restoration



Figure 2-10. Views of The Castle Restoration

Conclusion

The project aims to raise people's overall understanding of the origin of the castle, use it as a surveillance point, and restore the relationship between local people and the landscape. From some pictures showing the construction process (Figure 2-11), it is not difficult to see that the architect fully understood the existing conditions of the site after careful measurement and exploration. Then further determine the form and method of intervention, the largest destination realizes the connection between the site and the landscape, landscape and history, provides visitors with a convenient tour route and can experience the unique historical charm of the entire ruin, and in some sight set up an observation point at the location to restore the contact between the visitor and the venue, and between the venue and the town. Not only did the architect use minimal intervention in the plan, during the construction process, the builder also rarely touched the original site, to the greatest extent retained its own unique charm as a ruin.



Figure 2-11. Process of Restoration

2.1.3.2 Merola's Tower

Similarly, in Carles Enrich's other project (Figure 2-12, 13, 14, and 15), Merola's Tower, for the restoration and intervention of existing ruins, Carles analyzed the geographical location and historical significance of the ruins based on the existing conditions of the ruins themselves, and boldly and innovatively used a wooden frame. The support system reinforces and repairs the only wall section on the site. A staircase was placed in the supporting system to create a viewing platform with excellent views, connecting the remaining ruins with the landscape of the entire site, while at the same time fully retaining its own historical value.

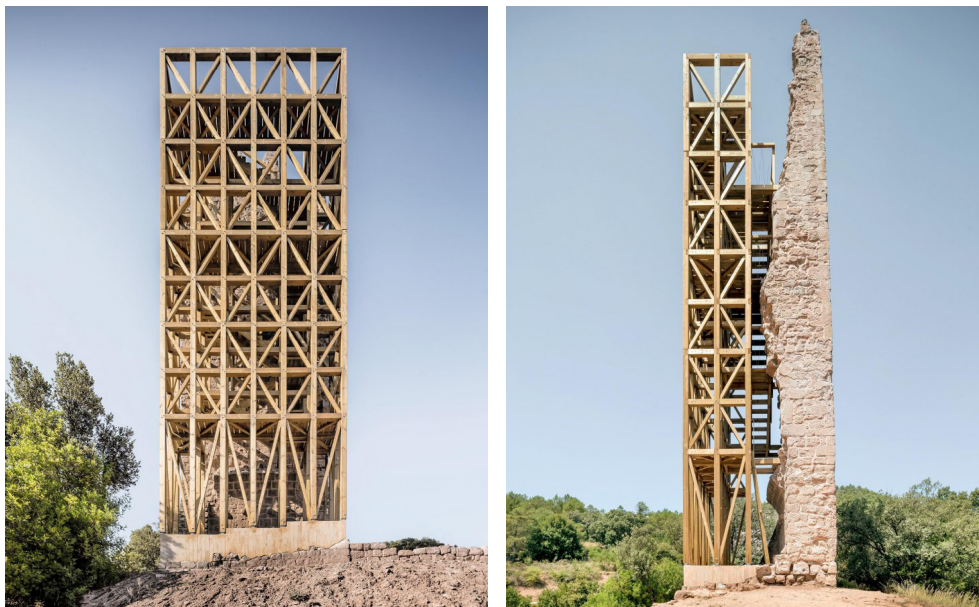


Figure 2-12. Merola's Tower

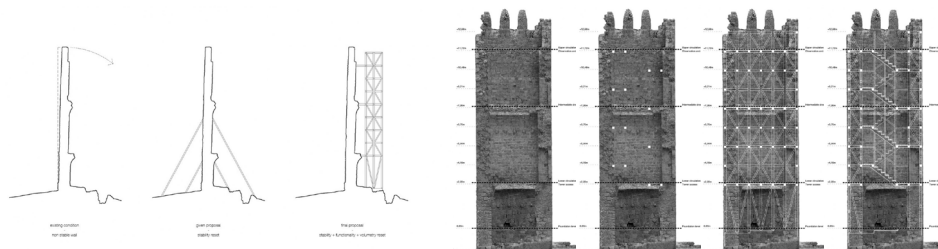


Figure 2-13. Process of Consolidation

The difference is that the project does not deliberately hide new interventions, but uses a huge structure of the same size as the ruins to show the huge difference between the new and the old, but at the same time it is very clever to touch as little as possible reinforce and repair the ruins. These exquisite designs are all based on a full understanding of the site environment, and the architects have also fully excavated its historical value, respecting and protecting the meaning and value of the ruins themselves. In contrast to the huge difference between the old and the new, the whole site can be reactivated to get more attention, which is also of great significance for the protection of the value of the ruins.



Figure 2-14. Sections of Merola's Tower

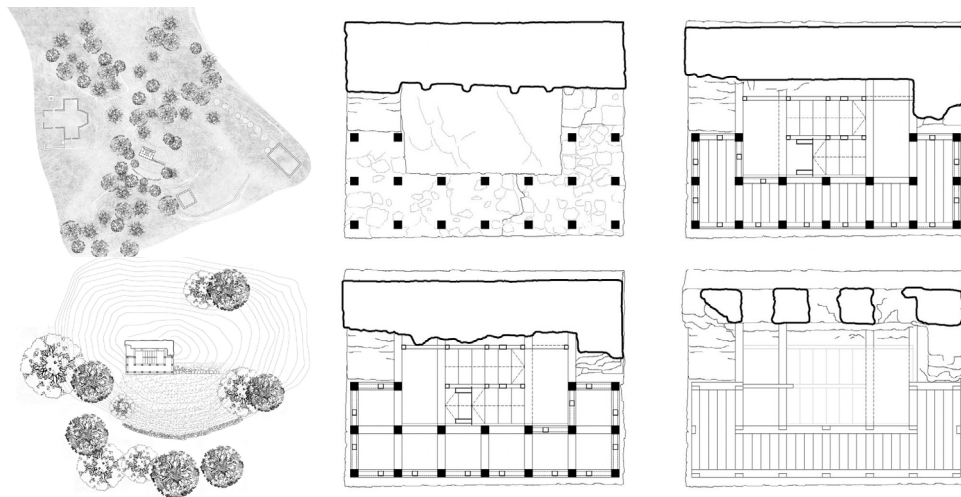


Figure 2-15. Plans Merola's Tower

2.2 Restoration

Status of Intervention

Minimal  Maximal

By removing fouling or reassembling existing components without introducing new materials, it is possible to restore the existing structure somewhere to a known early state. Restore the current structure of the building to a known previous state without using new materials. Restoration involves "restoring the physical and/or decorative condition of the old building to the condition of a specific date or event". The process of restoring a building to its original state. In this way, raw materials and technology are used. French architect Eugène Emmanuel Viollet-le-Duc was the representative of the theory of "restoration", he was the initiator and promoter of the "Stylistic Restoration" movement.

2.2.1 Eugène Emmanuel Viollet-le-Duc (1814–1879)

Eugène Emmanuel Viollet-le-Duc was the first chief inspector of France's historic "Service des Monuments Historiques". His main contribution as an architect and inspector was the restoration of heritage buildings because he has an understanding of traditional techniques and methods. Viollet-le-Duc was involved in many restoration projects in France, Belgium, the Netherlands and Switzerland and is recognized as the leader of the restoration movement due to its direct or indirect impact on restoration. When Viollet-le-Duc designed the restoration of Notre Dame in 1844 (Figure 27), he proposed the principle of "integral restoration" of ancient buildings. First of all, he believed in principle that every building, or every part of the building, should be restored to its original style, not only in appearance but also in structure. Therefore, this kind of holistic restoration was later called "stylistic restoration". Before and at that time, the restoration of cultural relics and buildings only required the appearance to be disregarded. Therefore, this proposition is of positive significance.

Viollet-le-Duc's interventions for restoration projects are usually extensive. Although they still maintain the original style, they sometimes include the insertion of new physical elements in the building. Regarding the reuse of historical buildings, Viollet-le-Duc pointed out:

".... The best means of preserving a building is to find a use for it, and to satisfy its requirements so completely that there shall be no occasion to make any changes."^[27]

[27] R. P. De Arce, *Urban Transformations and the Architecture of Additions*; Routledge: London, UK, 2014.

Viollet-le-Duc's theory focused on finding suitable uses for the restoration of buildings, and preserved the spirit of time by considering the efforts of the original architect. Therefore, his theory about the restoration of historical buildings also implied adaptability. Viollet-le-Duc used clear, direct and practical methods to repair buildings, this view had been adopted by architects of later times. However, contrary to Viollet-le-Duc's claim, finding a single use suitable for historic buildings didn't necessarily exclude the need for further restoration. The needs and requirements of users will change with time, and this phenomenon will promote the further restoration or reconstruction of cultural relics and buildings during its life cycle. Viollet-le-Duc further argued:

"In such circumstances, the best plan is to suppose one's self in the position of the original architect, and to imagine what he would do if he came back to the world and had the program with which we have to deal laid before him." ^[28]

Viollet-le-Duc believed that the restorer needs to act as the original architect and builder of the heritage building in order to restore it to its original state. However, in contemporary and practical, no one can completely imagine him/herself in the original architect's position. This imaginary location may lead to counterfeiting and threatening the intangible value of the building.

Viollet-le-Duc had carried out various adaptation projects, such as the restoration of Notre Dame Cathedral. Through the adaptation process, Viollet-le-Duc considered the designer's skills and believed that architects should pay attention to the architectural harmony of historical buildings and find ways to minimize the changes required for new uses.^[29] Therefore, Viollet-le-Duc considered the original architect and architectural style in his work and tried to minimize the changes. Jokilehto^[29] pointed out that Viollet-le-Duc emphasized the maintenance of cultural relics, and pointed out: "... No matter how good, the restoration of the building is always a regrettable necessity, and intelligent maintenance must always be prevented."^[30] Therefore, according to Viollet-le-Duc, the priority is to maintain heritage buildings rather than repair them. Stylistic restoration was introduced by Viollet-le-Duc, the leader of the restoration movement in the 19th century.

Although stylistic restoration is regarded as the main focus of the 19th century and has therefore been criticized by many theorists and charters (such as the Athens Charter), the practice of stylistic restoration is still feasible among protectors and architects worldwide. For example, the restoration of Manila Metropolitan Theatre in Philippine.

[28] Viollet-le-Duc, E.-E. *Dictionnaire Raisoné de l'Architecture Française du Xie Au Xvie Siècle, English Edition on Restoration* (London, 1875); B. Bance: Paris, France, 1854.

[29] J. Jokilehto, *History of Architectural Conservation*; Routledge: London, UK, 2007.

[30] J. Douglas, *Building Adaptation*; Routledge: London, UK, 2006.

2.2.2 Case Study

Contemporary architecture has developed plenty of projects of ruins restoration which rise to speak different theories of ruins restoration. Learn from the projects which represent contemporary attitudes to ruins restoration is useful and can be inspiration to propose new proposal of different ruins. Then several case studies have been selected in this chapter which are great examples of architectural practise of the theories "Adaptation".

2.2.2.1 Manila Metropolitan Theatre

Project architects Gerard Lico and Timothy Augustus Ong detailed how to bring icons back to life. The Metropolitan Theater (Figures 2-16, 17 and 18) is in the first stage of the conservation strategy.

Methodologies of intervention

The strategy is divided into two parts, which involve the repair and renovation of the theater curtain wall. Renovated its facilities and utilities; and restored the main theater, hall and open stadium according to Arellano's design intent in the 1930s. The contemporary adaptation of the building was in the form of stylistic restoration through restoring all components to their original state.

Conclusion

Figure 16 and Figure 18 are further evidence of practice of stylistic restoration, the new project was restored back to its previous appearance. But this project unilaterally highlights the essence of unity of style and ignores the protection of historical, scientific, and cultural information carried by the building. This is also one of the shortcomings of Viollet-le-Duc's "stylistic restoration" theory. The shortcomings of "stylistic restoration" can be summed up in two points here. A large number of buildings with other important values have not been protected. It does not understand the protection of various historical, scientific, and cultural information acquired during the existence of cultural relics, and destroys them in repair. Therefore, by the middle of the century, especially after the "Venice Charter" was generally accepted, the European cultural relics protection community generally believed that the "Frenchism" approach following the Viollet-le-Duc theory actually caused a great loss to a large number of European cultural relics.



Figure 2-16. Manila Metropolitan Theatre in Ruins before Restoration



Figure 2-17. Process of Restoration



Figure 2-18. Theatre after Restoration

2.3 Conservation

Status of Intervention

Minimal  Maximal

All processes that take care of a place to retain its cultural significance. Including maintenance; depending on the situation, may include preservation, restoration, reconstruction and adaptation; usually it will be a combination of multiple of them. Conservation is a way to take care of the natural and cultural importance of the place and can maintain that importance.

2.3.1 Camillo Boito (1836–1914)

Camillo Boito founded the Italian Conservation Movement and put forward practical guidelines on restoration and conservation of ruin. Boito was a follower of Viollet-le-Duc's restoration theory, and also appreciated Morris' restoration method. However, in 1884, Boito criticized Viollet-le-Duc and Ruskin because he believed that placing himself in the position of the original architect was risky and could lead to falsification. He said that the best recovery practices can confirm the existence of lies. Boito also criticized Ruskin's theory of nature conservation, noting that it was impossible to restore the historic building without touching it, and another option was to dismantle the building.

Boito pointed out the important difference between restoration and conservation. In restoring the ruins, Boito's focused was mainly on "do as little as possible". Therefore, he would rather restore some parts of the ruins than unnecessarily repair the entire building. He made a huge contribution to the anti-repair movement and dedicated to the protection work by preventing a lot of unnecessary repair work.^[33] Boito further stated that the best way to protect the ruins is to maintain the ruins, which should be regarded as an "urgent need", and thoughtful maintenance should prevent their restoration. Boito's theory on the protection of ruins has had a profound impact and laid the foundation for the Athens Charter. The Athens Charter is the first international document to encourage modern protection policies. Boito believed that the method of repairing cultural relics and buildings will vary depending on the situation, and that repaired should be based on the viewpoint of respecting the artistic and historical value of cultural relics, and he believed that reconstruction is not credible.^[31]

[31] C. S. Kim, *The development of attitudes to historic conservation—From eurocentrism to cultural diversity*; *Archit. Res.* 2010, 12, 25–32.

At the end of the 19th century and the beginning of the 20th century, Boito was the pioneer of the protectionconservation movement by exploring the methods of Viollet-le-Duc and Ruskin. He introduced three age groups and pointed out that the main purpose of restoring protection is to respect all these age groups. Boito also proposed different methods to distinguish old from new, which is an important factor in restoring historical buildings.

2.3.2 Alois Riegl (1858–1905)

Riegl defined various values related to monuments, which translate into "commemorative value" and "present-day value". The current value includes: use value, art value, relative art value and novelty value. Riegl distinguished between age value and historical value, and Riegl^[32] pointed out: "'Historical value' is only to copy copies to replace its historical and aesthetic. All these expressions show the conflict between the variables identified by Riegl , And further implies that Riegl accepted the stylistic/faithful restoration of traditional architecture to a certain extent. Historical value is important in the 19th century, while age value is considered to be the main value in the 20th century and "has the potential to rule the future."

According to Bold, Riegl believes: "Every piece of art immediately becomes a historical monument. In the strictest sense, there is no equivalent substitute for it." ^[33] Riegl was considered to be Irreplaceable resources must be protected.

According to Rouhi,^[34] Riegl rejected the theories of " restoration" and "anti-restoration ", arguing that each loss belongs to a certain period. Therefore, for the preservation of buildings, the value of the period needs to be defined. The statement Riegl believed that the protection of cultural relics and buildings beyond its historical value, but also should consider the chronological value.

Riegl believed that all mankind has a responsibility to protect and protect historical buildings. This belief was also embodied in the "United Nations Social Economic and Social Convention" as the concept of "common cultural heritage of mankind." ^[34] Riegl's publications on historical sites and their protection were still of practical significance and were applicable to the current situation and can be used for further research and discussion.

[32] A. Riegl, *The Modern Cult of Monuments: Its Character and Its Origin*; MIT Press: Cambridge, MA, USA, 1982; pp15-37

[33] J. Bold, P. Larkham, R. Pickard, *Authentic Reconstruction: Authenticity, Architecture and the Built Heritage*; Bloomsbury Publishing: London, UK, 2017; p13.

[34] J. Rouhi, *Development of the Theories of Cultural Heritage Conservation in Europe: A Survey of 19th and 20th Century Theories*. In *Proceedings of the 4th International Congress on Civil Engineering, Architecture & Urban Development*, Tehran, Iran, 2016.

Riegl played an important role in recovering and protecting the collapse of the 20th century by dating different values associated with traditional architecture. Riegl distinguished between restoration and conservation based on the priority between different values. His theory and definition of importance are applicable to the contemporary adaptive reuse of traditional architecture and the development of international conservation norms.

2.3.3 Cesare Brandi (1906–1988)

Cesare Brandi was a source of inspiration for Italian conservation theory and practice. By proposing reasonable rules of conservation and restoration methods, his theory of conservation was closely related to practice. In the early 1930s, Cesare Brandi discussed the restoration of art and architecture. Brandi claimed that the restoration of a ‘work of art’ needed to determine its specific aesthetics, history and “appeal”. He further emphasized the aesthetic aspect to re-establish the potential integrity of the work. Brandi introduced an important restoration theory and developed his theory on the careful restoration and protection of heritage structures. Brandi considered different forms of recovery from ‘simple respect’ to ‘radical operation’, and believed that the conflict in the concept of restoration was the result of this ambiguity. As noted in Matero,^[35] Brandi views restoration as an act of critical interpretation, and emphasizes “the potential unity of reconstructing a work of art, as long as it is not artistic. Do "or historical falsification without erasing the passage of time".^[36] Therefore, from Brandi's point of view, the restoration work is to not introduce artificial objects or even eliminate signs of decay in the case of a historic building, restoration of its original state of work. According to Schädler-Saub,^[36] Brandi defined conservation as a method, which first determined the artwork and its aesthetic and historical background under the natural conditions, we must also consider its spread to the future.

Jokilehto^[37] believed that Brandi believed that the building materials in a historical building were the result of human work, so using the same type of materials for building restoration can provide “chemically the same material”, but it proposed “different significance”. In this case, the restoration had a different meaning from the original restoration, and it will be wrong historically and aesthetically. However, contrary to Jokilehto, Mimoso stated that Brandi believed that because the aesthetic value of heritage buildings was very important, materials can be sacrificed. Schädler-Saub^[36] believed that Brandi believed that materials are part of the artistic information of artworks. Preserving materials must show the way artists create artworks, which is a top priority.

[35] F. G. Matero, *Loss, Compensation, and Authenticity: The Contribution of Cesare Brandi to Architectural Conservation in America*; PennDesign, Historic Preservation: Philadelphia, PA, USA, 2007; p6.

[36] J. Mimoso, *Cesare Brandi's Theory of Restoration and Azulejos*; Laboratório Nacional de Engenharia Civil (LNEC): Lisboa, Portugal, 2009; p2.

[37] J. Jokilehto, *History of Architectural Conservation*; Routledge: London, UK, 2007; p230.

Brandi believed that architecture is a kind of "work of art", which can be restored by aesthetic methods of the work.^[37] Brandi further pointed out that in view of the needs of its aesthetic and historical characteristics, the restoration work must be limited to the original building, and must be based on imaginable building harmony suggestions. Therefore, Brandi focused on historical and aesthetic values as an important feature of restoring historical buildings. However, as Matero^[38] said, Brandi also regarded functional performance as the driving force of restoration based on whether the function is "industrial" or "artwork". Therefore, Brandi's restoration theory focused on the aesthetic, historical and functional value of cultural relics.

Brandi defined the entire conservation work according to three categories: physical form and structure, history and environment, which must be recognizable even after changes. Therefore, "loss and compensation" was an important concern of Brandi and was considered to be an important issue in art and architectural conservation.^[38] Wong^[25] pointed out that Brandi's theory has gained international recognition in formulating protection policies and implementing UNESCO's mission.

Brandi was a 20th-century theorist dedicated to the modern conservation movement. He mainly studied the aesthetic and historical value in the restoration and conservation of cultural relics. His theory and method play an important role in formulating international conservation policies both domestically and internationally.

[25] L. Wong, *Adaptive Reuse: Extending the Lives of Buildings*; Birkhäuser: Basel, Switzerland, 2016.

[37] J. Jokilehto, *History of Architectural Conservation*; Routledge: London, UK, 2007; p230.

[38] F. G. Matero, *Loss, Compensation, and Authenticity: The Contribution of Cesare Brandi to Architectural Conservation in America*; PennDesign, Historic Preservation: Philadelphia, PA, USA, 2007.

2.3.4 Case Study

Contemporary architecture has developed plenty of projects of ruins restoration which rise to speak different theories of ruins restoration. Learn from the projects which represent contemporary attitudes to ruins restoration is useful and can be inspiration to propose new proposal of different ruins. Then several case studies have been selected in this chapter which are great examples of architectural practise of the theories "Conservation".

2.3.4.1 Museum of Castelvechio

In contemporary era, most of architects and the works the proposed can't be definitely recognized which theories they followed, restoration or conservation, but we can clearly realize that most of them are under the conservation theories. Taking the Museum of Castelvechio (Figure 2-19) renovated by Italian architect Carlo Scarpa as example to indicate the restoration-conservation theory has positive and valuable influence within ruins conservation work.

History and site

The Museum of Castelvechio is located in the magnificent medieval San Martino Castle in Acquaro, known as Castel Vecchio from the urban buildings of San Pietro and San Felice Castle.

In 1404, the city became part of the Venetian Republic and the castle was only used as a warehouse for weapons and ammunition. In the 18th century, it became the headquarters of Veneto Militar Collegio, the Venice Military Engineering Academy, and a new building was built at right angles to the old palace.

It has been in use since the beginning of the Italian government until 1923, when the city decided to transform it into a museum to store its art collection. The museum was approved by the architect Ferninando Forlati in accordance with the project plan by Antonio Avena. plan of. 'Verona Art Museum (Arte de Verona) includes adaptation to new functions, Gothic painting decoration, reconstruction of battlements or insertion of decorative elements of late Gothic and Renaissance facades.

However, during the Second World War, the building complex suffered severe damage and was in a dilapidated state (Figure 2-20).

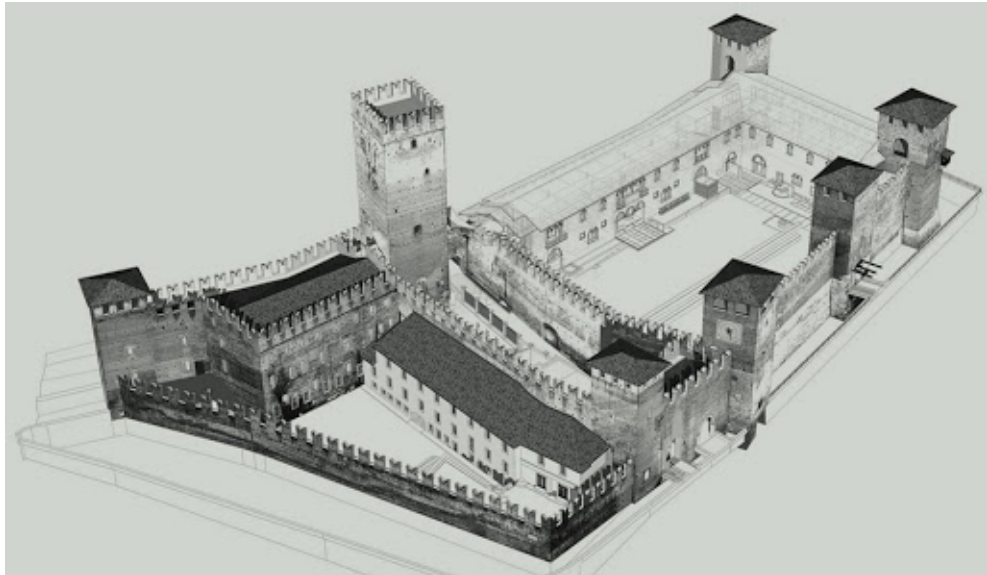


Figure 2-19. Museum of Castelvecchio, Scarpa, 1974



Figure 2-20. Museum of Castelvecchio at the end of World War II

Methodologies of intervention

The restoration of Italian cultural relics is like restoring an ancient pottery, trying to restore its original appearance, even if some details are added, it can allow the viewer to interpret where is the original and where is restored. This idea also existed in Scarpa's consciousness. At the beginning of the design, Scarpa wanted to expose some elements representing the history of the old castle.

He rearranged the parts of the old castle built in various eras and restored it to a recognizable state. In 1923, an architect named Arnardo Vladi^[39] intended to present the building in the form of an Italian Gothic style during the renovation of the old castle, thus decorating the asymmetrical facade of the barracks into a symmetrical medieval style the facade of the building caters to the Italian architectural form (Figure 2-21). However, Scarpa believed that such a transformation is a "fake". Although it was closer to the order of classical Italian architecture, the transformation of the building itself made it impossible to record the building history. So Scarpa respected the asymmetry of the original facade, restored the building to its original state, and moved the entrance of the museum from the middle to the side. The garden also changed the originally restored Italian-style garden, eliminating the strong intensity that only the palace had. Symmetry, so that visitors can better understand the military architecture of the old castle (Figure 2-22).

Scarpa's clarity on the historical time of the building was also reflected in the separation of the restored part from the original building. The new component was separated from the original part in space, even if it needed to be touched, it should be touched as little as possible, so that the new part of the building was fully



Figure 2-21. Facade of Castelvechio, Arnardo Vladi Figure 2-22. Facade of Castelvechio, Scarpa

[39] R. Murph, *Carlo Scarpa & Castelvechio*[M], Venezia: Arsenale Editrice, 1991.

separated from the old part to distinguish the ancient and modern. On the material, Scarpa also adopted the strategy of distinguishing between ancient and modern. He did not use a lot of the same materials as the old castle to achieve the so-called unity of style, because it would obscure the age of the building, but used very different materials to distinguish the reconstructed part from the original part.

In the layout (Figure 2-23) of the visiting streamline, a circular streamline is adopted, that is, the ending point of the streamline is the same as the starting point. Visitors come from two directions, through the large courtyard in the middle to the right of the middle building to enter the museum. The following exhibition space is basically composed of a long space.

Scarpa tried to penetrate a large number of spaces and elements to tell different stories to visitors. In the penetration of various spaces and elements, Scarpa not

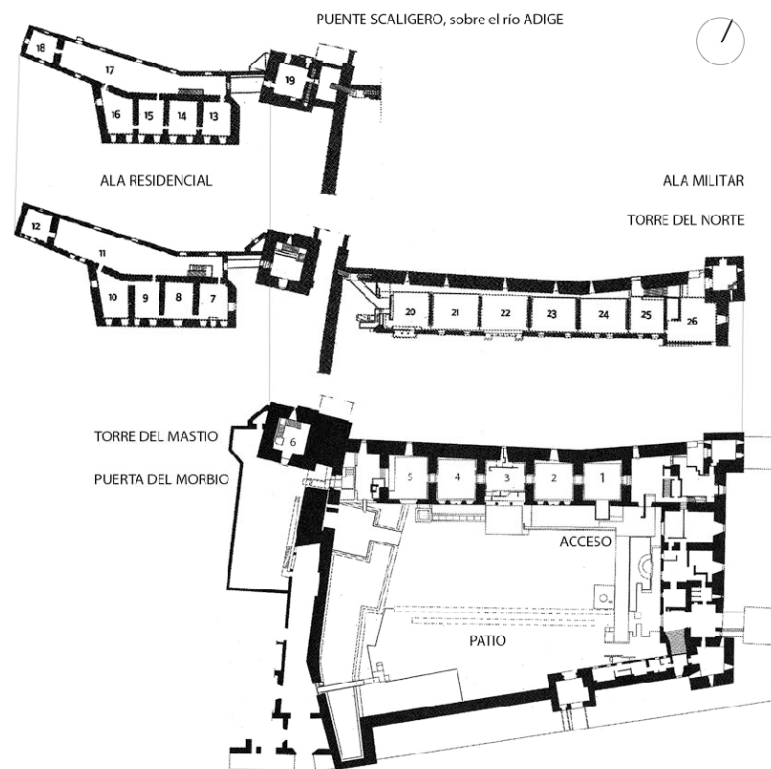


Figure 2-23. Layout of Museum of Castelvecchio

only considered the connection within the museum, but also the connection with the castle and even the city of Verona. In the streamline, visitors can not only see various sculptures and other exhibits, but also fully understand this nearly 700-year-old castle, they can also see the traces of the castle's construction in different years, and even stand in the old castle. Take a panoramic view of the city of Verona on the city wall to better understand the construction process of the city and the castle. So, for this museum, the exhibits are not just those sculptures, but also the castle itself and the city of Verona. The Old Castle Museum not only tells the story of the exhibits, but also tells the story of the building of the old castle itself, but also runs through the relationship between the old castle and the city, and even the course of urban development.

One of the most special and famous corners of the museum is the place where a statue of Cangrande (Figure 2-24) is located. Cangrande was once the ruler of several cities in northern Italy, including Verona. Since this castle was built during the Cangrande period, he was naturally the castle and the "protagonist" of that period of time. In order to show the importance of this statue, Scarpa made many attempts to highlight its importance. At first Scarpa tried to place the statue on a high base, then placed it in the inner courtyard, and later placed it at the entrance to further highlight its importance. However, in the end, Scarpa placed it at the end of the second stream of the northern building. Although the base is removed, its importance seems to be diminished, but the sculpture on a large cantilever makes people see and curiosity when entering the garden, making the viewer want to find out. This corner is located in the middle of the streamline, and the space is very rich, gathering many elements from different periods. This is the place where the Napoleon Barracks built later and the original castle are connected. There are parts of the castle built by Scarpa in various eras, and some structures added by Scarpa. You can also see the entire castle garden and even watch it. Scenery of the city of Verona. This space pushed the visit to the climax, and it was also the climax of the entire space.

At this climax point, Cangrande's statue is the absolute subject of space. Since this climax point is the junction of buildings of different generations, Scarpa set up a series of trails and bridges (Figure 2-25) to establish connections. At the same time, a moving line centered on the statue is formed. The moving line changes at different heights and angles, and the visual center has always been a statue, which forms a direct dialogue between the viewer and the statue. Maybe when you enter the courtyard you have not seen the face of the statue and the weapons on

your body, and now you can understand the details of the statue in an all-round way, so that the viewer can understand the character and the stories that happened in history. Light is an important attribute of architecture. Light can reveal the sense of volume of objects and make sculptures alive. There are a large number of sculptures in the museum (Figure 2-26). Scarpa also personally set up exhibitions for the museum. The location of each sculpture was carefully arranged by Scarpa. In the exhibition space, Scarpa fully considered the angle projected by natural light and the height and angle of the statue, which played a huge role in recreating the history represented by the sculpture.

While light makes the sculpture fresh, Scarpa also paid great attention to the location and manner of sculpture placement. Sculptures are not all lined up bluntly, but have different aspects. In this way, there will be a sense of dialogue. The sculpture seems to be a group of people standing on the square at this time, with different poses and clothing, and it seems to tell different stories. Then sculptures and viewers have become the main body of space at this time, and the environment created by architecture and light is the place of dialogue.

Conclusion

The project includes the creation of new passages, walkways and stairs, as well as new lighting and heating systems, a completely innovative renovation of the museum's equipment, and a perfect blend of ancient and modern architecture. Because of its spectacular scenery, it has now been transformed into an excellent image of the museum under the background of the medieval city wall.



Figure 2-24. Statue of Cangrande



Figure 2-25. Vision of the Path



Figure 2-26. Vision of the central axis that connects the five rooms

2.3.4.2 Baena Castle

After a series of studies and archaeological excavations, the restoration of Alcazaba in Baena (Figure 2-27) began in 2005 proposed by architect José Manuel López Osorio, which allowed us to understand the scale of the fortress and the changes it has experienced throughout history.

The purpose of the restoration is to integrate the heritage, not only to consider the restoration itself, but also to consider the value of the existing structure and the possibility of cultural use of the monument. By accepting the changes made throughout history and combining other elements that allow the use and appreciation of the castle, the existing structure is respected in its current state.

History and site

Baena is located on the site of a former Sean (Arabic castle) called Bayyana, which has existed in the 9th century. Baiana is related to the Muradi rebellion led by Umar ibn Hafsun, who eventually conquered Bayana in 890 AD.

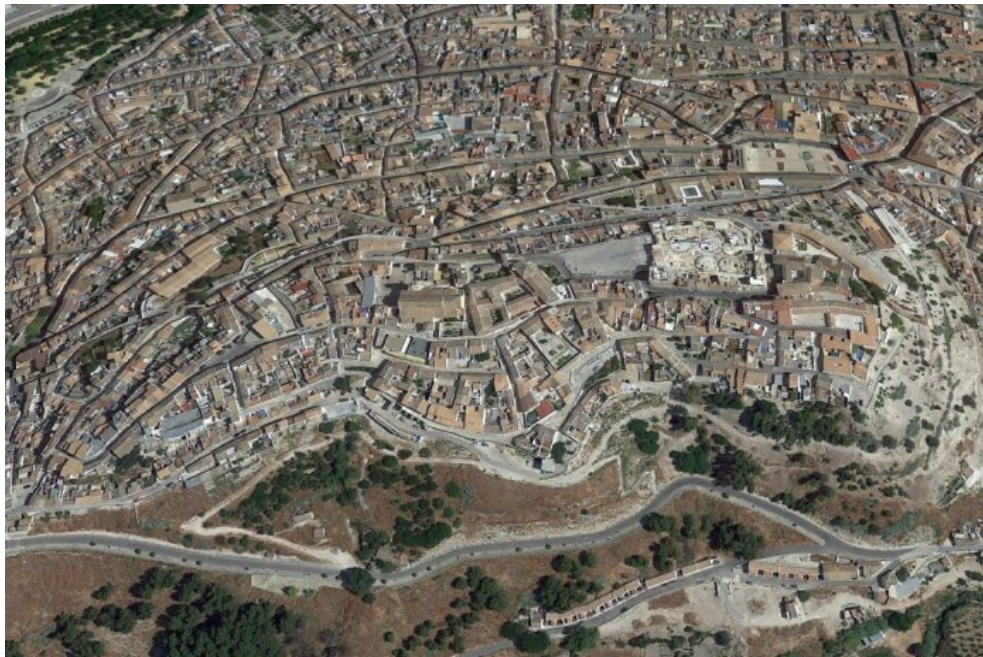


Figure 2-27. Satellite image of the village (the center right is Baena Castle)



Figure 2-28. State before restoration maintenance

Baena offered little resistance to Christians in August 1241, so Bayyana became Christian Baena. It was the property of the king throughout the 13th and 14th centuries. Later the monarch of Trastamara tried to make it the lord between 1386 and 1448, when Baena residents admitted their dependence. At this time, the fortress began to rebuild in order to provide security during a period still full of conflict.

The Duke abandoned the palace a few years before the auction, and the management moved in. They used only the part of the building where the Duke once lived, and the rest of the castle became ruins. It was at this time that the use of reasons changed again. The original military building turned into a palace, which gradually declined. In addition, between 1927 and 1959, a reservoir was built on a solid terrace. These works are very complicated, destroying all the historical buildings in the site, and the surviving buildings are turned into ruins. This is how we found it today (Figure 2-28).

Methodologies of intervention

The architectural intervention performed is part of the recognition of the ruin and its historical design, partially restoring the skyline of the towers, of whose original form graphic and written records have been kept. Consolidating and restoring (Figure 2-29 and 30) the historic

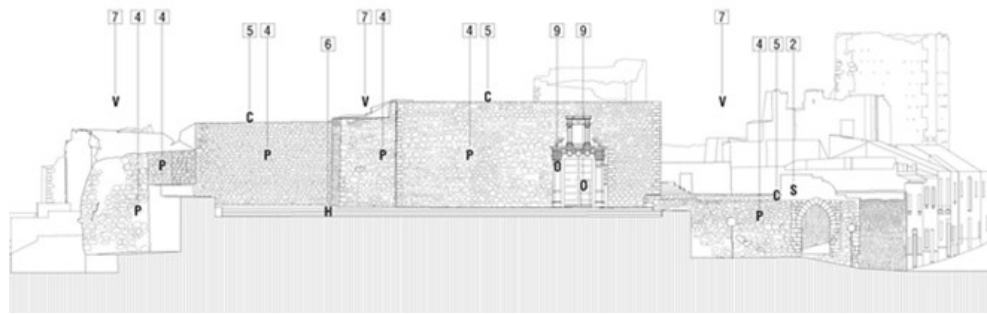


Figure 2-29. Analysis of the condition of the castle

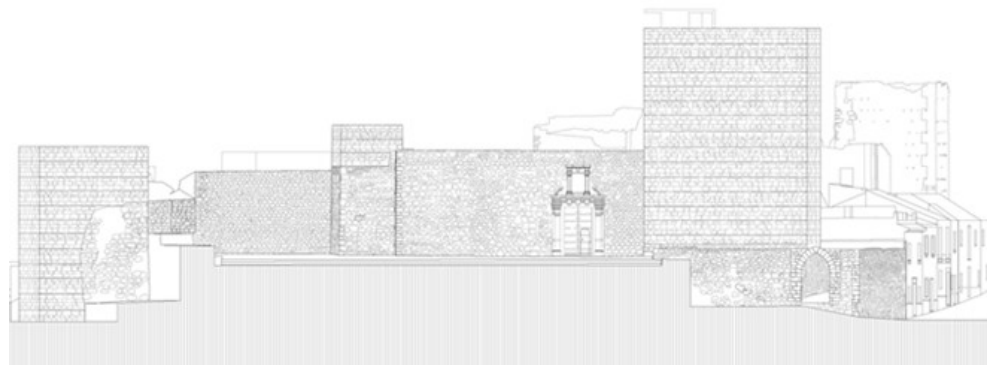


Figure 2-30. Structural reinforcement and restoration plan

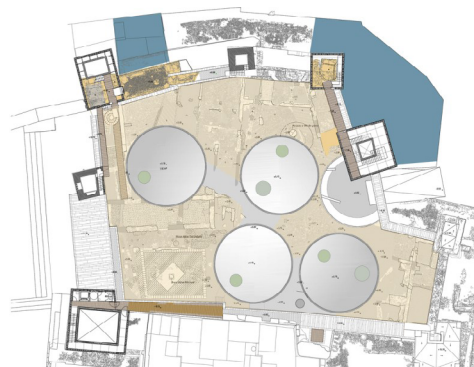


Figure 2-31. Baena Castle 1st Floor Plan

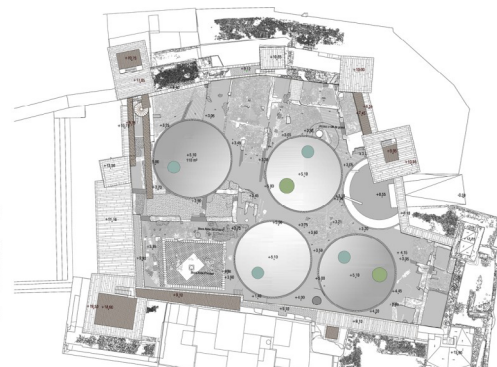


Figure 2-32. Baena Castle 2nd Floor Plan

building works and pavements (Figure 2-31 and 32) that have been unveiled during diggings. The castle's new walls are constructed using reinforced masonry made from sandstone and stainless steel ribs (Figure 2-33), which are structurally linked to reinforced concrete (Figure 2-34) cores located in the towers. The recovery of volume and the creation of new interior spaces (Figure 2-35) creates new possibilities for the old castle's use for cultural and heritage purposes.

Conclusion

The restoration of the former tower known as Torre de las Arqueras of which there is only written and graphic evidence of its existence. This tower will host the Visitor Center for the Castle-Alcazaba of Baena. The tower roof will be accessible and will offer a view to the whole town (Figure 2-36) and the landscape around it.

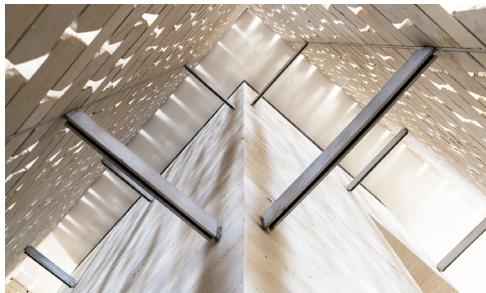


Figure 2-33. Stainless Steel Ribs



Figure 2-34. Reinforced Concrete

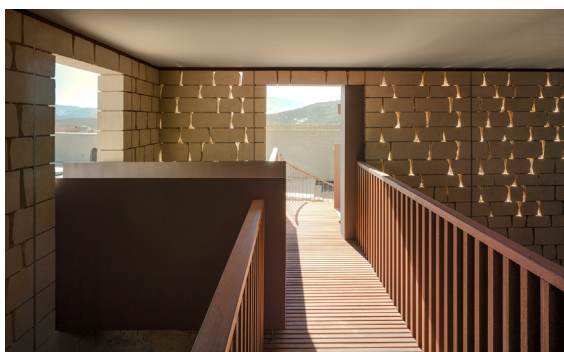


Figure 2-35. Interior of Baena Castle



Figure 2-36. Exterior of Baena Castle

2.3.4.3 Kolumba Museum

History and site

In the Second World War, the city of Cologne, Germany was blown up by allied air strikes and drowned in the rubble, causing huge loss of life and property. During those medieval times, Saint Kolumba Parish was the largest and leading church in the city.

The Kolumba church (Figure 2-37)h near the Cologne Cathedral showed the church's strength for decades. Until 1943, the entire site was attacked by a bomb, after which everything was destroyed destructively. In the church, the only war to be spared is the old Gothic image of the Virgin Mary placed on the pillar. Except for the small church built by the local architect Gottfried Böhm at the site to commemorate the devastating explosion in 1949, the ruins remained intact until the establishment of the Kolumba Museum in Peter Zumthor in 2007.



Figure 2-37. The Kolumba church in ruins after Second World War

Methodologies of intervention

Seen from the plan (Figure 2-38), the building is roughly divided into a museum area and a heritage area, connected by a pathway. Zumthor's idea – ambitious and daring – surrounds the ruins of the church and entirely merges with them. The lower level is left as an archaeological site with a pathway (Figure 2-39) leading to the upper levels which house the museum's exhibit areas. The winding passage ensures that there is minimal impact by visitors on the archaeological site.

Conclusion

Most of the successes and impact of the Kolumba museum lie in the fusion between the new and the old. The architect designed a minimal façade which stands out on the street level. The connection between the colour of the material, form and the ruins is the art of simplicity. The new building's façade feels intensely silent with the handmade grey brick material and patches of windows (Figure 2-40) here and there for lighting.

Characterised by immensity of its warmly coloured volume, the form fits in the street, making itself a landmark without much struggle. To lighten the impact of the blocky form, Zumthor designed perforations on the façade (Figure 2-41) that allow light into some of the spaces within the building.

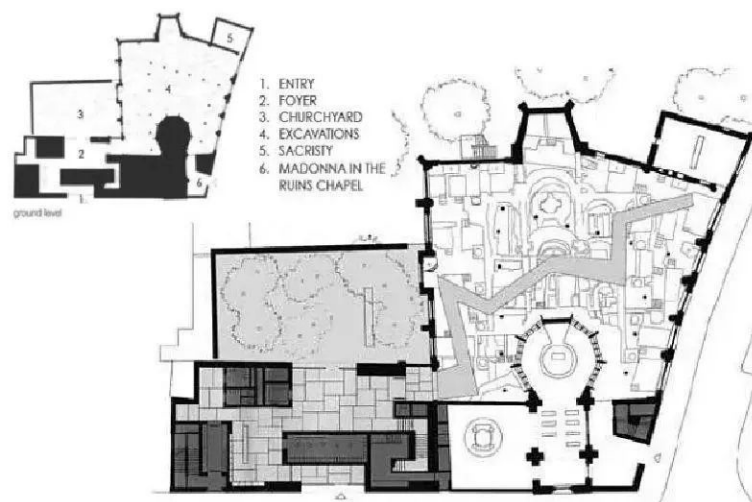


Figure 2-38. Ground floor plan



Figure 2-39. Pavement in the museum



Figure 2-40. Facade viewed from street



Figure 2-41. Light through the wall

2.4 Adaptation

Status of Intervention

Minimal  Maximal

Any work done to change the function, performance and capacity of the building (beyond the scope of maintenance). Modify the location to suit the recommended compatible usage. Adaptation can only be accepted if it has little effect on the cultural significance of a place, and adaptation should include minimal changes to important structures, which can only be achieved after considering alternatives. Adaptation means making small changes or fairly flexible changes in terms of reversal potential. Adaptation means adapting to another use, and sometimes seems to be the best way to protect historic buildings.

2.4.1 Adaptive Reuse

Powell^[22] pointed out that no matter how protected, the origin of architectural changes began in the 19th century. Although adaptation has been formalized as theory and practice since the 1970s, there have been changes throughout the history of ruins to other functions and uses. The act of converting existing ruins into new functions is not new, because in the past, structurally sound ruins have been changed to accommodate new functions or changed requirements with little concern or doubt. In most cases, the intervention was carried out on the basis of need, rarely for the sake of protecting the ruins. Powell^[22] believed that functional and financial factors are the driving force to promote adaptive reuse, and pointed out that the legislation on the protection of cultural relics and buildings only appeared in the 19th century. Cantacuzino^[41] was one of the first authors to describe adaptive practice. He emphasized the structural durability of the old building, which is the main driving force for its adaptation over time, and believed that the adaptation and preservation of existing buildings in the urban environment will enhance the sense of belonging of the entire society over time.^[40]

“Because structure tends to outlive function, buildings throughout history have been adapted to all sorts of new uses. Except when the cataclysm of natural forces or war wreaked wholesale destruction, change in the urban fabric was slow, which enabled generation after generation to derive a sense of continuity and stability from its physical surroundings.”

[22] K. Powell, *Architecture Reborn: The Conversion and Reconstruction of Old Buildings*; Calmann & King Ltd.: London, UK, 1999.

[40] S. Cantacuzino, *Re-Architecture: Old Buildings/New Uses*; Abbeville Press: New York, NY, USA, 1989.

In 1995, Brand conducted a detailed discussion on adaptive reuse,^[41] paving the way for contemporary practice. He believed that technology, fashion and money are three important reasons for adaptive reuse^[41]. Although Brand's main focus was on all existing heritages, these factors are crucial for making decisions related to adapting contemporary heritages. Brand's adaptive reuse method further illustrated that as time passed the purpose of the ruin adaptation is from preserving value to financial basis to technical improvement. In contemporary adaptation practice, the focus is on upgrading the site without destroying the value of the heritage. However, the first task is to protect the heritage value.

De Arce^[42] believed that the use and reuse of heritages played an important role in urban development. It can improve the quality of towns through various factors, including prolonging the use of existing ruins and reducing the cost of materials due to recycling, to create local awareness of space and history, and to continue the way of daily life. De Arce did not consider the needs and requirements of society, nor did he realize the need to preserve the historical and architectural value of the site in order to adapt. However, these characteristics are crucial to the ruins. Many authors have defined adaptive reuse, and they claim that this is a series of changes, from the preservation of ruins by heritage value to the partial or complete change of ruin functions for other uses. Therefore, the concept of adaptation sometimes covers all the concepts discussed in this article, including conservation, restoration, preservation, and even maintenance of ruins (Figure 2-42).

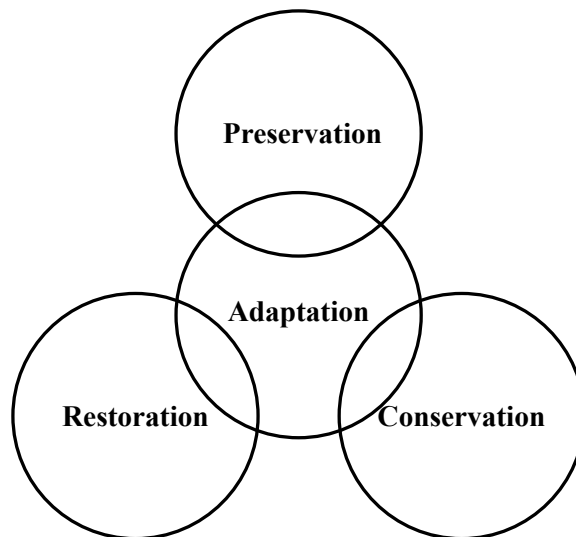


Figure 2-42. Relationship between Concepts

[41] S. Brand, *How Buildings Learn: What Happens after They're Built*; Penguin books: Melbourne, Australia, 1995.

[42] S. Cantacuzino, *Re-Architecture: Old Buildings/New Uses*; Abbeville Press: New York, NY, USA, 1989.

2.4.2 Case Study

Contemporary architecture has developed plenty of projects of ruins restoration which rise to speak different theories of ruins restoration. Learn from the projects which represent contemporary attitudes to ruins restoration is useful and can be inspiration to propose new proposal of different ruins. Then several case studies have been selected in this chapter which are great examples of architectural practise of the theories "Adaptation".

2.4.2.1 The Church of Sant Pere de Corbera d'Ebre

In the largest battle of the Spanish Civil War, nationalists and republicans fought for more than five months near the town of Corbera d'Ebre (Figure 2-43). In addition to the deaths of thousands of soldiers on both sides, the Battle of Ebro also destroyed the town. After that, it was decided to keep the church on the ruins of the hilltop as a memorial.

To better protect the monument (Figure 2-44), architect Ferran Vizoso (and Nuria Bodas, Jody Garriga and David Garcia) were invited to design the canopy (Figure 2-45) for the site. The new canopy can protect the residents and the masonry of the church from wind and rain, while also reducing the temperature. The resulting space is between the interior and the exterior, between the old and the new.



Figure 2-43. Town of Corbera d'Ebre



Figure 2-44. The Church before Work

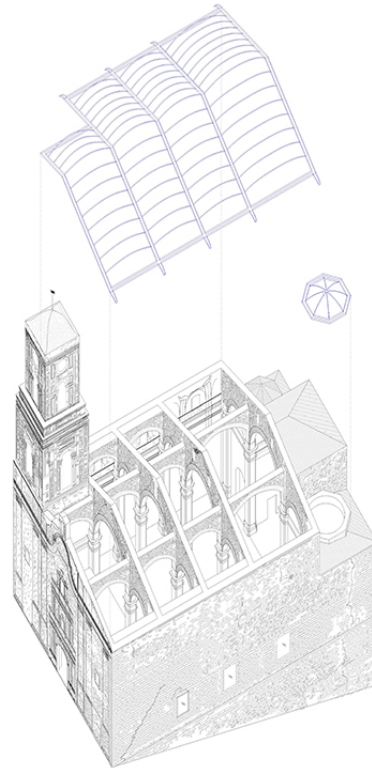


Figure 2-45. New Canopy Applied to Roof



Figure 46. Cover for Ebre 1938,
Francesc Xavier Hernández Cardona
and Mar H. Pongiluppi



Figure 2-47. Model of the Town after Devastation

History and site

Corbera d' Ebra is an idyllic Catalan town centered on ruinous history, surrounded by vast vineyards and surrounded by vast vineyards. These heights were built around beautiful hillsides, only covered by rubble, which was once the medieval heart of the village before it was destroyed nearly 80 years ago. Perhaps the most decisive battle to determine the outcome of the Spanish Civil War, the Battle of Ebro (Figure 2-46) is undoubtedly the largest and longest battle in this conflict, from July 25 to November 16, 1938. Seeing the Republican army trying to (unsuccessfully failed) to reunite their respective fronts, the Battle of Ebro claimed that Kobera de Ebre was one of its many victims.

The devastating explosion of the town (Figure 2-47) was blown up and removed from the surface, in stark contrast to the Second Spanish Republic, and was demolished only a few months later.

Methodologies of intervention

The main purpose of the work was to restore the public use of the old temple, transforming it in a new and secure multifunctional public room, without changing its appearance, a great symbol and expression of the Spanish Civil War.

Since the beginning of the works one thing was clear, the restoration (Figure 2-48 and 49) had to preserve the subtle balance in between nature and construction (exterior and interior) that all ruins have. The perception of still being outside when "entering" had to be kept.

On the final phase, architect Ferran Visozo complement the roof structure with ETFE transparent membrane (Figure 2-50) that allow huge amount of natural lighting to enter the space and fulfill the original purpose of the preservation which is to provide a balance between the structure and its surrounding as well as emphasizing the coexistence between the past and present.

Conclusion

Visozo brought this value and resulted with historical and soothing space that describes the feeling of being outside while staying inside. This project is warmly accepted by the citizen as it provides least intervention since the roof structure is very lightweight and will not damage the building. Besides that, the transparency



Figure 2-48. Exterior Appearance



Figure 2-49 Interior Space



Figure 2-50. ETFE Transparent Roof

of the roof causes it to as if disappear and blend into the nature which create a very natural view from inside. The people there is now able to utilize Sant Pere without worrying over weather and this structure itself helps into preserving this ruins from further deterioration.

In doing historical building preservation, one should be aware of the intervention that they may cause towards the original building structure either from the factor of the visual difference they create or the change of atmosphere due to the additional of new modern material.

2.4.2.2 Convent of Sant Francesc

The church of the Sant Francesc Convent (Figure 2-51) in the town of Santpedor, Catalonia, intervened with the aim of turning abandoned buildings into cultural facilities by architect David Closes. The newly added building implemented allows the building to be used as an auditorium and multifunctional cultural space.

History and site

Santpedor is a small rural municipality located about 75 kilometers north of Barcelona. Overlooking the hilly Spanish countryside, it has more than 7,000 residents. The two attractions of the town include the Romanesque Gothic church of St. Peter and the Hermitage of St. Francis. The monastery once included churches and monasteries, built by the Franciscan congregation in the 1700s. However, in 1835, the monastery was fired and was eventually demolished in 2000. The walls of the church itself were broken, the walls were broken, the walls have collapsed, the windows were drooping, and the roof had small holes (Figure 2-52).

Methodologies of intervention

Now, the old brick walls are dotted with modern glass windows, concrete brackets and bright lights (Figure 2-53). These new aspects coexist in harmony with the



Figure 2-51. Convent of Sant Francesc



Figure 2-52. Convent before Renovation

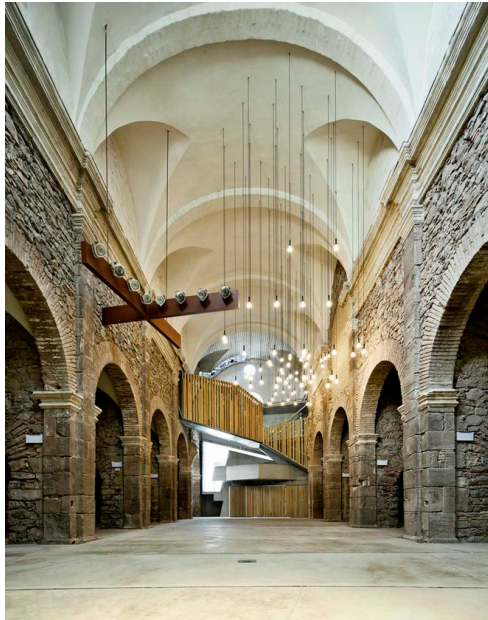


Figure 2-53. Old brick walls and new concrete



Figure 2-54. Winding paths

original space to some extent, rather than in harmony with the original space. The roof has partially collapsed, and the windows have been filled with holes, allowing natural light to flow inside. The historic barrel vaulted ceiling is illuminated by sleek, slender lights. The glass wall separates the public space from the gravel, which encourages visitors to inspect and appreciate the past of the space.



















In order to protect and expand the beauty of the central church of the church, Closes established a new area (partly outdoors) for storing large technical equipment. Passing through the central hall, stairs and ramps decorate the organic space with geometric elements. These passages provide an unobstructed circular route through the building, and visitors can see surprising views as they drive along winding paths (Figure 2-54).

Conclusion

The renovation project of the building aims to distinguish the newly added elements by using a contemporary architectural system and language different from the original elements of this historic church in order to preserve all aspects of the building's past.

Key Theories	Project	Original Construction Time	Time of Being Ruins	Reuse Time
Preservation (anti-restoration)	Wimpole Tower	1770s	1976	2016
	Castle of Jorba	16th century	1835	2017
	Merola's Tower	13th century	1885	2019
Restoration	Manila Metropolitan Theater	1930	1940	2016
Conservation	Museo di Castelvechio	1354	1924	1974
	Baena Castle	890	1959	2016
	Kolumba Museum	980	1950s	2007
Adaptation	Convent of Sant Francesc	1700s	2000	2011
	The Church of Sant Pere	1827	1938	2011

Figure 2-55. The Practises of Ruins Restoration B

	Original Function	Current Function	Designer	Before Reuse	After Reuse
	Folly	Heritage	SPAB		
	Castle	Heritage	Carles Enrich		
	Defense tower	Heritage	Carles Enrich		
	Theater	Theater	Gerard Lico and Timothy Augustus		
	Castle	Museum	Carlo Scarpa		
	Castle	Cultural Center	José Manuel López Osorio		
	Church	Museum	Peter Zumthor		
	Church	Auditorium	David Closes		
	Church	Cultural Center	Ferran Vizoso		

Based on *Theories of Ruins Conservation*, by Author

03.

**MINIMAL INTERVENTION
IN TORRE SALVANA**

3. Minimal Intervention in Torre Salvana

Status of Intervention

Minimal  Maximal

Contemporary architects have done plenty of project which taking the concepts of ruins conservation into practise, it's obvious when promoting a renovation work architect should consider from many aspects and make enough reserch before start. Then they would find out better methods to intervene the ruins by following different attitudes. In this thesis a minimal intervention will be proposed in a abandoned castle which is ruins nowadays. According to the concepts mixed with preservation and adaptation (Figure 3-1) mentioned in previous chapter and based on careful reserch, the intervention will be as little as possible but it will usefully reactivate the site and recall the ruin's romantic memory.

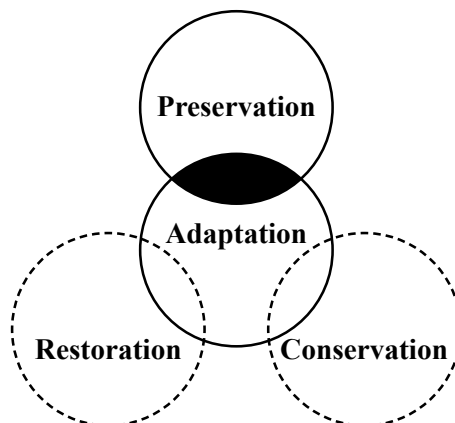


Figure 3-1. Concepts Followed

According to the existing conditions in the castle, the watchtower, the historical trace and the open space inside, to utilize those elements to start my proposal but tried best not to touch the ruin to make the existing ruin as landscape elements rather than architecture. Hence, a new stair in the watchtower which will provide a possibility for visitors to arrive the top of the tower is necessary to be built. This step will reuse the highest point of the castle which will provide chance to have a great view of the whole district. Also, the diverse function is necessary to be proposed in the project so that a small facility with function of bar, toilet and service will be put into the site, meanwhile to connect the roof and two existing abandoned stairs together which will create an accessible terrace to provide visitors a chance to touch the ruin directly but the building won't touch the ruin.

3.1 History and Location of Torre Salvana

Torre Salvana is a Romanesque-style castle dating from the 10th century, it has a characteristic defense tower in its structure, the first reference I have is the sale of the Ennec Bofill estate by Count Ramón and Emngol in 992. As a result of the Catalan Civil War in 1224 the castle was partially destroyed. In the year 1,297, Jaume II bought the castle for a value of 130,000 salaries, kept it on his property and that of his heirs for almost a century and in the year 1,390 was sold to the city of Barcelona. In 1715 the castle was abandoned in very bad condition due to the war between Jaime I and Joan II. It is currently in a state of ruin.

Located on a hill in the form of a raised promontory, it enjoys privileged views over the entire territory of Baix Llobregat, which gave it an important strategic advantage. Furthermore, it dominates crops on both sides of the river, although agricultural activity disappeared years ago. It is an old advanced defense tower, first dated in 992 and related to the Cervelló lineage. It will end up becoming a fortified farmhouse that will be known by different names throughout its history: since 992 it was called the Torre d'Eles, and in the 14th century it appears as the Tower of Cort or Sacort. In 1224, the castle was damaged as a result of the Catalan revolts, being practically destroyed in certain areas. Nonetheless, In 1297 Jaime II bought the building from its owners to keep it on their property and that of their heirs for almost a century, until 1390, when it was sold to the city of Barcelona. In 1716, after the capitulations of September 11, 1714 of the War of the Spanish Succession, she was seized for having supported the cause of Archduke Carlos of Austria against Felipe V de Borbón. From then until the end of the 18th century, the Torre Salvana castle was part of the heritage of the Marquises of La Manresana and Santa María de Barberá. She was seized for having supported the cause of Archduke Charles of Austria against Felipe V de Borbón. From then until the end of the 18th century, the Torre Salvana castle was part of the heritage of the Marquises of La Manresana and Santa María de Barberá. She was seized for having supported the cause of Archduke Charles of Austria against Felipe V de Borbón. Since then and until the end of the 18th century, the Torre Salvana castle was part of the heritage of the Marquises of La Manresana and Santa María de Barberá.

Its current appearance (Figure 3-2) responds to the numerous alterations that occurred throughout the history of the building. Although its first layout is Romanesque, as befits the 10th-13th centuries, various Gothic modifications

occurred in the semi-detached house. New reforms were carried out in the 18th century, which would continue in the 19th century through the practice of openings in the tower and the renovation of the Barbican in the Neo-Gothic style. Defense turrets and battlements were also added which, despite being very popular at the time, never belonged to the original layout.

After doing the research of usage of building in La Colònia Güell (Figure 3-4), it is easy to find the conclusion that this area only has one attractive place Cripta de la Colònia Güell which attracts few tourists every year. But there are some historical landscape are wasted more or less due to the lack of attraction of whole area. Hence, considering what kind of building is useful and necessary to build to reactive this area, another cultural building is possible because of the existing sport building here.



Figure 3-2. Torre Salvana

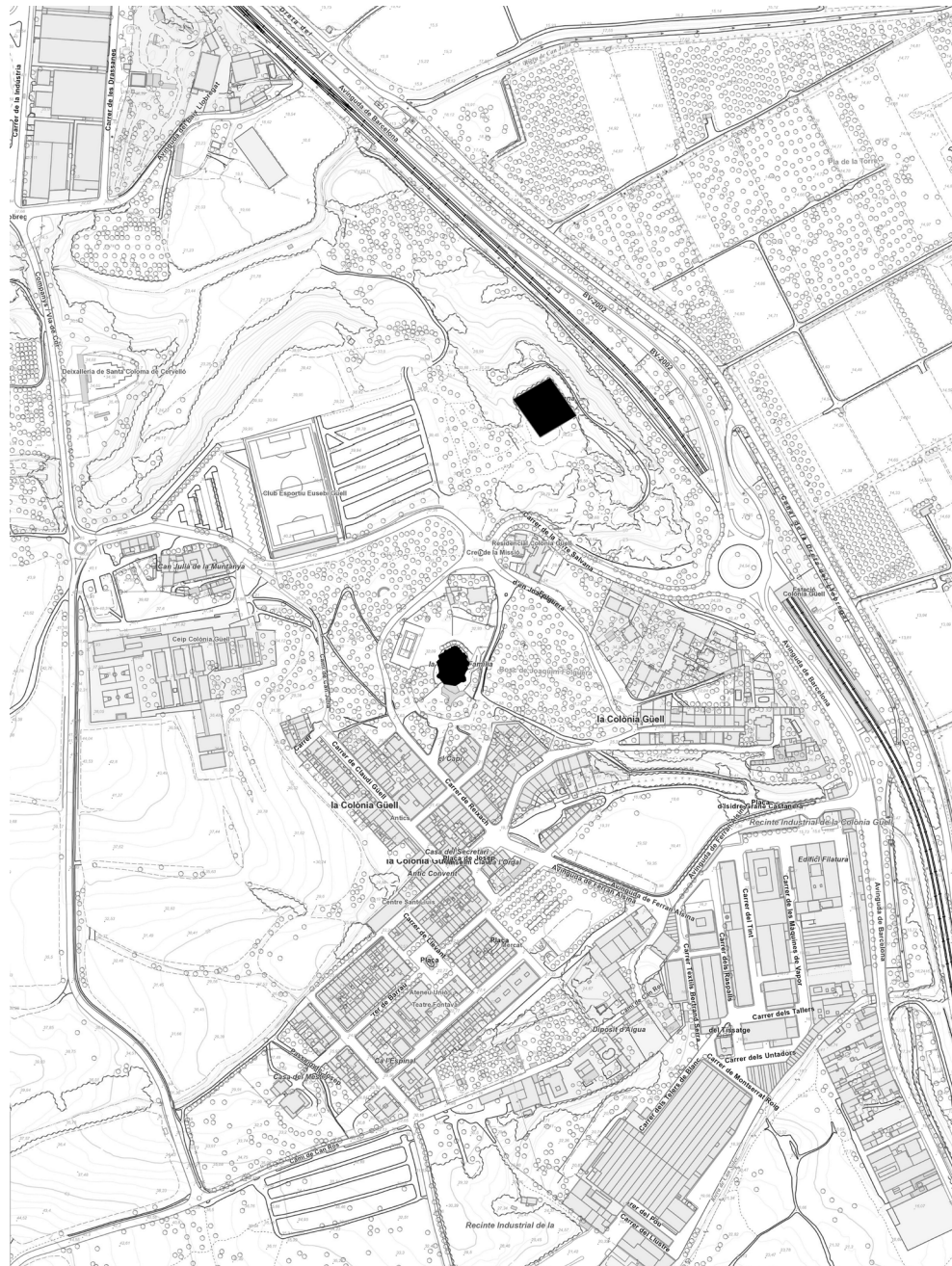


Figure 3-3. Map of La Colònia Güell

3.2 Current Situation in Torre Salvana

Currently, the castle is abandoned entirely and placed in a very bad situation even that nobody from official apartment is in charge of it. This site becomes a shelter for tramp. But it still attracts a lot of tourists due to itself legency and mysteries otherwise the tramp won't find chance earn money here. What I mentioned above is going to indicate that this site is worth to be protected and reactivated.

Looking at current situation of the site, an opening square is in front of the entrance which is good for people gathering and spreading. However, the whole site including the square isn't easy to enter whic means the castle is unaccessibile for tourists so that it's necessary to consider the accessibility when start masterplan planning.

What happened in the castle? The most attractive parts are the historical trace, broken walls, typical Catalan vaults and the two remained special stairs which give me a strong space feeling.



Figure 3-4. Square in front of Torre Salvana



Figure 3-5. Current Situation in Torre Salvana

As a defensive building, the castle was kind of proof of the development of La Colonia Guell. The existing situation in the castle, abandoned but meaningful for itself. The trace of its original structure such as arch, the remained stairs, the abandoned broken wall and the watchtower, they all represent the castle's great value of history.







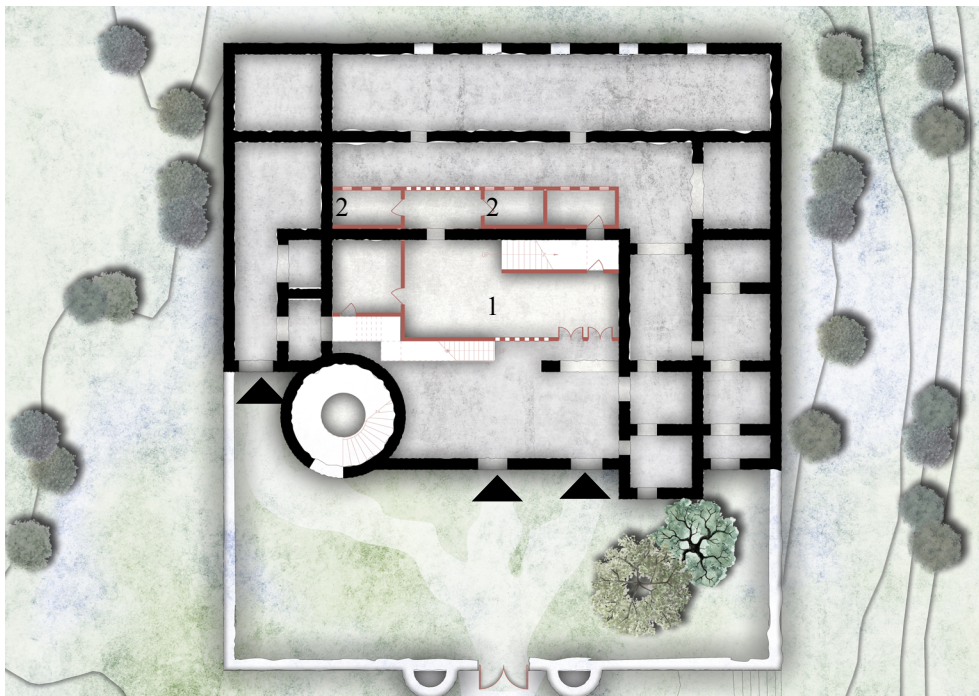
Figure 3-7. Previous Site, Masterplan before Intervention



Figure 3-8. New Access, Masterplan after Intervention

Plan

Following the principle of preservation (see Chapter 2.3), the work of intervention should be minimal to the ruin which means reserve the existing elements as much as possible but taking the requirements of users into consideration, some basic facilities are essential to be proposed. According to analysis of the ruin and its surrounding, a bar with some basic functions in the middle of the site was proposed to activate the site with new functional facilities.



1. Bar 2. Toilet 3. Accessible Platform

Figure 3-9. Ground Floor Plan

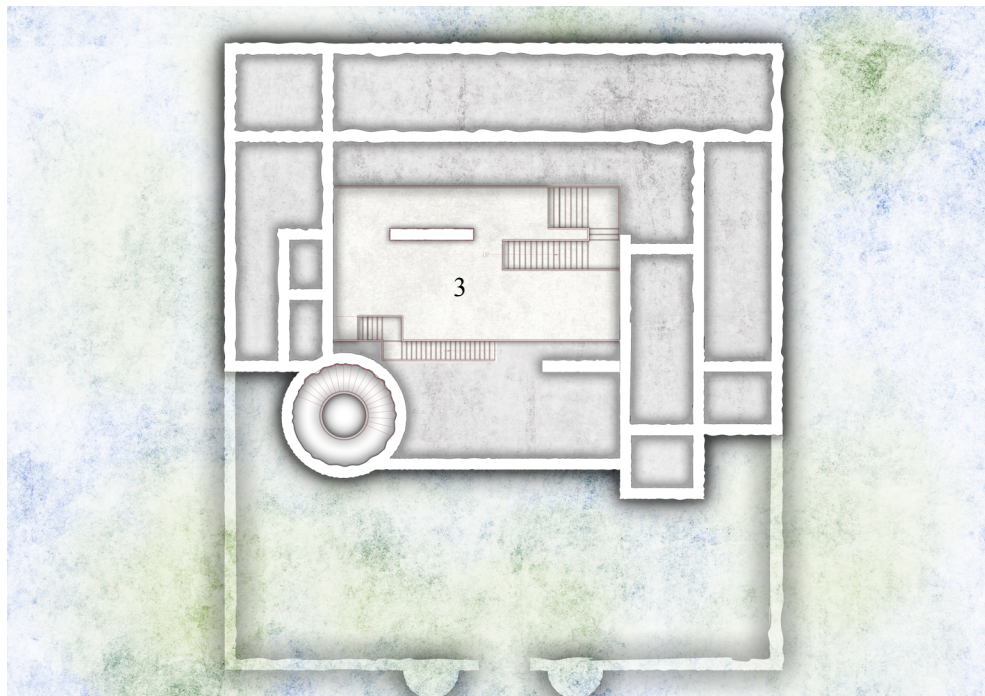


Figure 3-10. Roof Floor Plan

Section

The part in red color is the new function added in the proposal. The roof will be severed as an accessible platform. The existing two stairs, both of them, will connect to the platform. On the platform visitors are able to touch an abandoned wall and overlook the castle as much as they can.

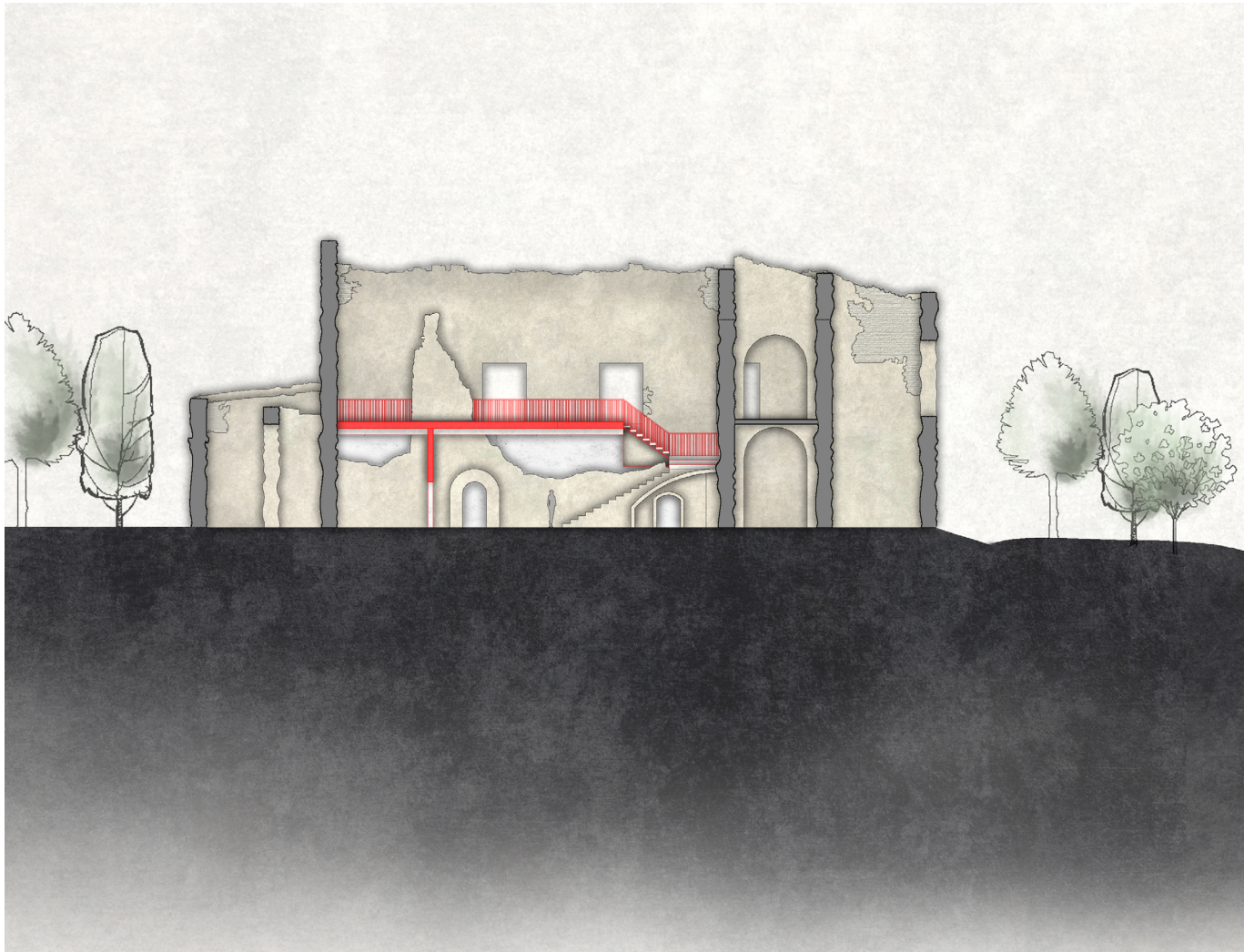




Figure 3-11. Section A-A

Section

The part in red color is the new function added in the proposal. In the watchtower a new staircase which didn't exist before was added to provide visitor a chance to have a great view of the whole site.



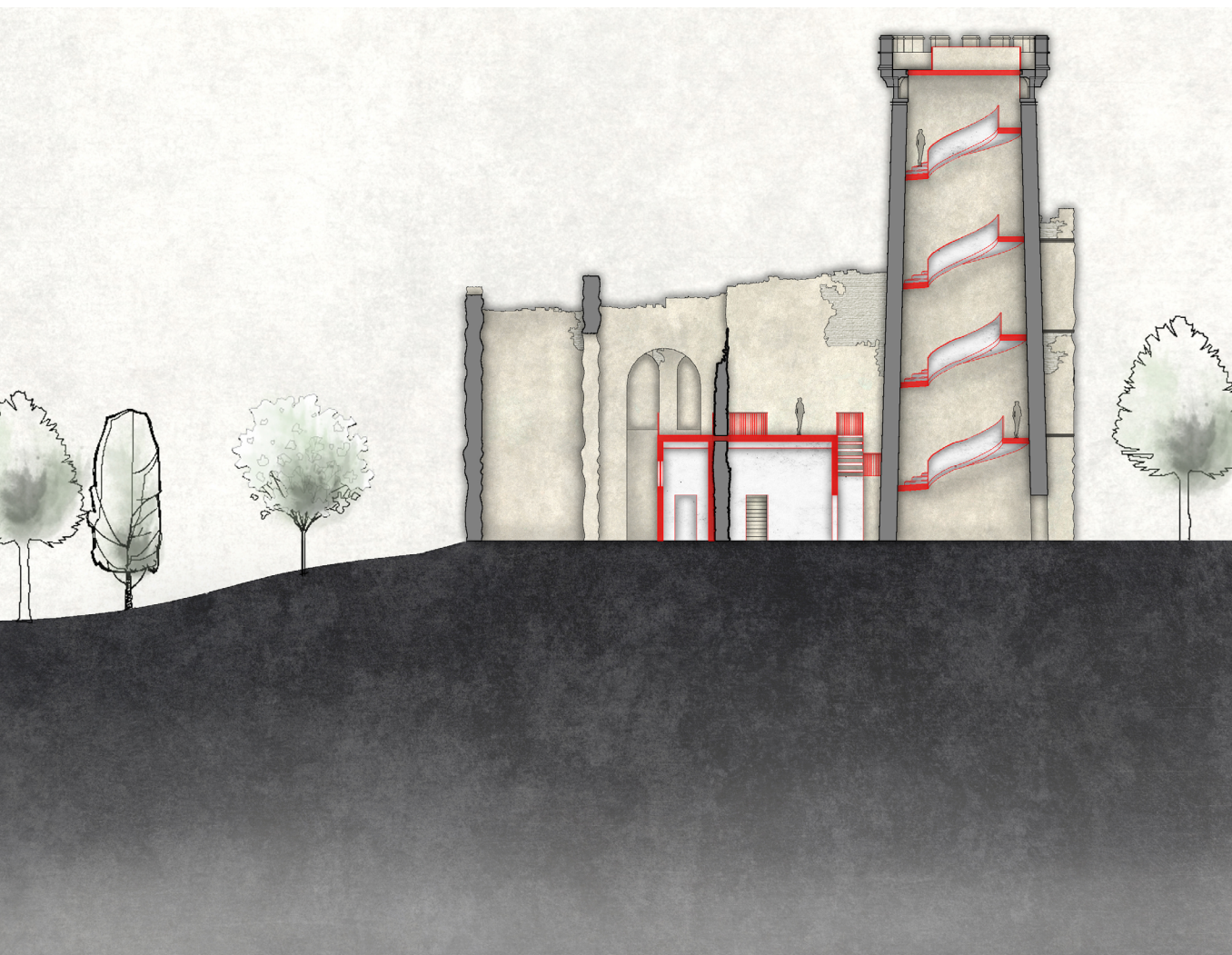


Figure 3-12. Section B-B



Figure 3-13. Collage of View



Figure 3-14. Collage of View

Conclusion

Many important concepts, such as reversibility (or better treatability) and minimal intervention, are at the core of the growing library of Morals and Charters. However, there are no textbook rules on when recovery should be performed or how far recovery should go. On the contrary, each case is considered to be different and must be judged according to its case. This may be the reason for protecting/restoring permanent charm.

In order to study this issue here, I considered the reconstruction of the ruins. In many ways, it is an extreme example of restoration. In order to define the problem as clearly as possible, I will limit my discussion to the buildings in the past. The existence of these buildings is mainly known from the remains excavated before the reconstruction. In other words, although there may be other references to their previous existence, it is mainly recognized again because of their invisible visible debris.

When I was considering the project of rebuilding historical buildings, these historical buildings existed in the distant past, but only sparse literature and pictorial references can be spared. Therefore, in the process of rebuilding the ruins, these precious features of the ruins or their own value should be retained to the maximum extent.

In this article, I mainly conducted research on the background of the ruins, a historical heritage full of romanticism, and summarized the restoration theory of contemporary architectural heritage. In the course of practice, we learn from some cases of contemporary ruin restoration and seek the attitude of contemporary architects on the restoration of ruins. In the end, I reactivated a ruin through minimal intervention, trying to discover the poetry of the ruin.

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Figure 3-10. Roof Floor Plan, by Author

Figure 3-11. Section A-A, by Author

Figure 3-12. Section B-B, by Author

Figure 3-13. Collage of View, by Author

Figure 3-14. Collage of View, by Author

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